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Canada. Royal commission on coal.

Hearings. v. 9-10, 1960





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*Dean Rand*

**ROYAL COMMISSION**  
**ON**  
**COAL**

UNCORRECTED TRANSCRIPT  
Royal Commission on Coal(1959)

**HEARINGS**

HELD AT

**CALGARY Alberta**

VOLUME No.:

**9**

DATE:

**MARCH 31 1960**

OFFICIAL REPORTERS  
ANGUS, STONEHOUSE & CO. LTD.  
372 BAY STREET  
TORONTO  
EM. 4-7383 EM. 4-5865







## I N D E X

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Calgary, Alberta.

March 31, 1960.

---On commencing at 10.00 a.m.

THE SECRETARY: Mr. Commissioner, ladies and gentlemen, before calling upon the first brief, I have been requested to ask you to refrain from smoking, if you will, please.

Mr. Commissioner, I would firstly like to call upon Mr. H. H. Somerville who will present a brief on behalf of the government of Alberta. This brief will become recorded as Exhibit No. 44.

---EXHIBIT NO. 44: Brief of the Government of Alberta.







SUBMISSION OF  
GOVERNMENT OF THE PROVINCE OF ALBERTA

Appearances:

The Hon. H. H. Somerville.

MR. SOMERVILLE: My lord, the Hon. the Premier who is also the Minister of Mines and Minerals has asked me to offer his regrets that he is unable to be in attendance at the sittings of the Royal Commission.

The Premier extends to the Commission and party a hearty welcome to the province and expresses his hope that your sittings in Alberta will be most helpful to you, and your stay in the province very enjoyable.

My submission this morning is that of the Department of Mines and Minerals for the government of the province of Alberta.

INTRODUCTION: The mineral resources owned by the crown in that part of Canada now contained within the province of Alberta were administered by the Department of the Interior of the federal government from 1870 until the transfer of the natural resources to the province of Alberta in 1930.

The patents for lands granted as homesteads or sold on or before the 31st day of October, 1887, included the mines and minerals. On that day Order in Council No. 1070 was passed authorizing the minister of the interior to insert a clause in all patents for lands that were granted after October 31, 1887, reserving to







1  
2 Her Majesty all mines and minerals which may be found to  
3 exist within, upon or under the lands, together with full  
4 power to work the same.

5 During the year 1881, applications were made  
6 to the department of the interior to lease coal, and by  
7 Order in Council No. 1687 of the 17th day of December,  
8 1881, the minister of the interior was authorized to grant  
9 leases for the removal of coal subject to an annual rental  
10 of fifty cents an acre and a royalty of ten cents a ton  
11 on all coal taken out of the mine.

12 Because of representations by coal operators  
13 to buy coal lands, the Bow river coal district and the  
14 Belly river coal district came into being by Order in  
15 Council No. 2424 of the 26th day of December, 1882, and  
16 within these districts the minister of the interior was  
17 authorized to sell land including coal by tender or  
18 public auction. As time went on, further coal districts  
19 were created and purchase prices ranging from twenty  
20 dollars an acre to seven dollars an acre were prescribed  
21 in place of the public auction procedure. In 1901, the  
22 first regulations came into being requiring royalty on  
23 coal lands sold thereafter. In the same year, the rate of  
24 royalty was fixed at ten cents a ton of 2,000 pounds, and  
25 in 1915, the rate of royalty was reduced to seven cents a  
26 ton.

27 While some leases had been granted as early as  
28 1881, the federal government in 1907 suspended the sale  
29 policy in favour of a leasehold policy and the leasehold  
30 policy has subsequently prevailed. From 1907 each coal  
lease granted by the federal government, whether in







1  
2 dominion lands, park lands or school lands, provided  
3 for the payment of an annual rental of \$1.00 an acre and  
4 a royalty of five cents a ton on the merchantable output  
5 of the mine.

6 Consequently, in Alberta we have three main  
7 categories of coal properties:

- 8 1. Freehold
- 9 2. Freehold subject to a crown royalty, and
- 10 3. Crown leases subject to a crown royalty.

11 As well, those possessing freehold coal in Alberta have  
12 leased properties to coal operators reserving unto them-  
13 selves a royalty on coal mined. These freehold leases are  
14 not of record in any government office and are not dealt  
15 with in this submission. Coal in approximately 16 million  
16 acres are held in freehold and this represents about ten  
per cent of the area of the province.

17 Nicholas Sheran opened the first coal mine in  
18 what is now Alberta on the banks of the Oldman river near  
19 Lethbridge in 1872 and hauled coal from there to Benton,  
20 Montana, by ox train for a number of years. From this  
21 humble beginning the coal industry became the major mineral  
22 industry in Alberta. This position was held until 1950  
when the valuation of oil produced exceeded that of coal.

23 Consequently, this submission is mainly concerned  
24 with conditions which have prevailed in the last ten  
years.

25 RESERVES: Coals in Alberta range from near  
26 anthracite to poor quality sub-bituminous. Alberta's  
27 reserves of mineable coal have been estimated by federal  
28 and provincial officials at eighty-seven billion net tons.







PRODUCTION: The high demand for energy fuels which developed during World War II resulted in a steady increase in Alberta's coal production which reached its peak in 1946 of 8,824,455 tons. Production remained fairly constant until 1951.

Table 1 shows the production and valuation of coal produced since 1949.

TABLE I

PRODUCTION IN TONS AND VALUATION

<u>YEAR</u>	<u>UNDERGROUND</u>	<u>STRIP</u>	<u>TOTAL</u>	<u>VALUATION</u>
1949	5,675,027	2,941,956	8,616,983	\$44,541,538
1950	5,019,852	3,098,354	8,118,206	41,631,579
1951	4,832,162	2,829,114	7,661,276	41,000,953
1952	4,505,963	2,688,509	7,194,472	39,974,318
1953	3,382,230	2,535,193	5,917,423	32,158,435
1954	2,729,569	2,129,567	4,859,136	26,349,275
1955	2,352,343	2,104,235	4,456,578	23,486,399
1956	2,325,005	2,004,634	4,329,639	23,283,966
1957	1,770,482	1,384,872	3,155,354	17,287,229
1958	1,273,362	1,246,577	2,519,939	12,778,111
1959	1,335,164	1,214,353	2,549,517	12,892,747

Examination of the table reveals that the tonnage and values have gradually declined.

Since 1950 rising costs of transportation and competition from oil and gas in markets previously supplied by coal were factors in the decline in coal consumption.







The bituminous mines were first affected as the railways, on which they depended for a steady market, commenced the conversion to diesel power units. The expansion of gas distribution systems and the increased supply of propane and fuel oil also had a deteriorating effect on the market for sub-bituminous coal and were factors in the closing of a number of underground mines. At the same time, coal from strip mines was supplying a greater share of the available market.

Strip mining came into prominence during World War II when the Emergency Coal Production Board assisted a number of strip operations to supplement the tonnage produced by underground mines. That an increasingly large percentage is being produced by strip operations may be attributed to the higher production per man-day and consequent lower unit costs.

The relationship in terms of man days - eight hour shifts - between underground and strip mines is indicated in table 2.

TABLE 2

COAL PRODUCTION IN TERMS OF MAN-DAYS

UNDERGROUND MINES				STRIP MINES				
YEAR	No. of Mines	Tons Mined	Man-Days	Tons Per Man-Day	No. of Mines	Tons Mined	Man-Days	Tons Per Man-Day
1949	111	5,675,027	1,644,687	3.45	94	2,941,956	266,235	11.05
1950	108	5,019,852	1,478,479	3.40	99	3,098,354	256,837	12.06
1951	103	4,832,162	1,397,300	3.46	76	2,829,114	285,761	9.90
1952	90	4,505,963	1,273,729	3.54	67	2,688,509	248,535	10.82
1953	81	3,382,230	953,937	3.54	65	2,535,193	187,592	13.51
1954	77	2,729,569	768,120	3.55	59	2,129,567	175,438	12.13
1955	63	2,352,343	629,563	3.74	53	2,104,235	153,676	13.69
1956	55	2,325,005	613,833	3.79	49	2,004,634	136,485	14.69
1957	47	1,770,482	447,690	3.95	46	1,384,872	87,656	15.79
1958	40	1,273,362	319,362	3.98	43	1,246,577	67,274	18.52
1959	32	1,335,164	304,732	4.38	39	1,214,353	73,138	16.60





The increase in strip mining has been another factor in the reduction of underground operations. It should be noted that in most cases the ownership of strip mines is distinct from that of underground operations. Of the major underground mines still in operation, for are in the Drumheller area, one is at Canmore, one is at Lethbridge and three are in the Crow's Nest Pass. The principal strip mine areas are Forestburg, Sheerness, Taber, Wabamun and the Crow's Nest Pass.

Classification by annual tonnage of operating mines if shown in table 3.

This table is broken down to the smaller mines and to those mines producing over 200,000 tons a year.

TABLE 3

CLASSIFICATION BY ANNUAL TONNAGE

	UNDER 10,000 TONS		10,000 TO 100,000 TONS		100,000 TO 200,000 TONS		OVER 200,000 TONS	
	Under		Under		Under		Under	
YEAR	Ground	Strip	Ground	Strip	Ground	Strip	Ground	Strip
1949	71	66	25	15	8	9	7	4
1950	65	67	24	23	12	7	5	4
1951	70	45	16	22	12	3	6	5
1952	60	37	15	22	7	5	8	3
1953	58	43	12	14	4	3	7	5
1954	53	35	13	16	6	5	5	3
1955	44	30	11	16	3	5	5	2
1956	37	28	10	14	3	4	5	3
1957	29	29	10	12	6	4	2	1
1958	25	26	9	14	4	2	1	2
1959	17	23	9	13	6	1	-	2







THE COAL MINES REGULATION ACT: The province has regulated the operation of coal mines in Alberta from 1906 and the statute now in effect governing the operation of coal mines is the Coal Mines Regulation Act. (Exhibit I).

The statute is administered by the mines division now consisting of the director, assistant director, four district inspectors, one electrical inspector and an office staff of four. The division also administers the Quarries Regulation Act which takes up about ten per cent of its time and the Coal Sales Act which will be mentioned later in this submission. The cost to the province in administering the mines division by fiscal years following April 1, 1949, is shown in table 4.

TABLE 4

COST OF ADMINISTERING MINES DIVISION

<u>Fiscal Year</u>	<u>Cost</u>
1949-50	\$ 72,006.65
1950-51	68,443.29
1951-52	77,299.37
1952-53	73,195.95
1953-54	67,650.09
1954-55	74,181.69
1955-56	72,043.45
1956-57	75,583.76
1957-58	75,189.78
1958-59	77,952.32







1  
2 It will be noted from that table that the cost  
3 of operation of the division remains quite constant.

4 THE MINES AND MINERALS ACT: Part IV of the  
5 Mines and Minerals Act (Exhibit II) deals with the pro-  
6 visions of crown leases, royalties payable on crown  
7 leases and royalties payable on freehold titles subject to  
8 royalty. Some of the general provisions in Part I of the  
9 act also apply to coal.

10 All leases issued by the province are for a term  
11 of twenty-one years and renewable for one further term  
12 of twenty-one years. Further renewals each for terms of  
13 twenty-one years may be granted upon such terms and con-  
14 ditions as may be prescribed by the Lieutenant Governor in  
15 Council. Each lease is subject to the payment of an  
16 annual rental of \$1.00 an acre, but in 1954, in view of  
17 the hardships that the coal mining industry was experienc-  
18 ing, the annual rental on each lease in existence at  
19 April 1, 1954, was reduced to twenty-five cents an acre  
20 and this reduction in rental still applies today. The  
21 reduction in rental to date has meant a saving to industry  
22 of \$630,000.

23 The leases issued by the federal government  
24 before 1930 required payment of royalty at the rate of  
25 five cents a ton and payment at this rate is permitted  
26 during the term of the lease and the first renewal being  
27 in total forty-two years. Each lease issued by the pro-  
28 vince and any second or further renewal of a federal lease  
29 is subject to a royalty of ten cents a ton. On freehold  
30 titles, reserving a royalty to the crown, the rate pre-  
scribed in 1915 of seven cents a ton still prevails.





Revenue to the province from royalties and rentals appears in table 5.

TABLE 5

REVENUE FROM ROYALTIES AND RENTALS

<u>FISCAL YEAR</u>	<u>TONNAGE SUBJECT TO ROYALTY</u>	<u>ROYALTIES</u>	<u>RENTALS</u>
1949/50	5,965,226	\$651,568.47*	\$191,725.77
1950/51	5,566,499	623,311.67*	180,778.48
1951/52	5,423,815	437,410.85*	182,343.94
1952/53	4,702,535	379,492.51*	151,944.23
1953/54	3,825,186	286,569.25	133,495.35
1954/55	2,799,500	230,906.86	52,033.34
1955/56	2,657,823	216,839.64	38,430.09
1956/57	2,049,953	165,134.62	48,286.97
1957/58	1,331,881	109,223.27	61,810.09
1958/59	1,189,332	99,675.81	40,650.61

Now with respect to this table, the note is of importance because the royalties in the first four years of the table were substantially reduced. I will read the note:

\*On April 1, 1948, the royalty on federal coal mining leases and their first renewals was increased from five to ten cents a ton and on freehold titles subject to royalty, the rate of royalty was increased from seven to fifteen cents a ton. In view of the hardships encountered by the coal industry, the increased rates of royalty were







on April 1, 1953, restored to the former rates and all royalties paid in excess of the former rates were refunded. The total amount refunded was \$778,802.84, and about three-quarters of this amount applied to the fiscal years 1949/50 and 1952/53.

At December 31, 1959, there were 456 crown leases containing 144,000 acres in force in the province.

THE MINERAL TAXATION ACT: The Mineral Taxation Act (Exhibit III) provides for the levy of a tax based upon an assessment each year in coal producing areas held under freehold title. Coal producing areas in the province have been gradually reduced in size but each operating mine must be included in a producing area. The annual assessment and tax levy is shown in table 6. In addition the act provides for a tax at the rate of one and one-half cents an acre payable on each freehold mineral title irrespective of the mineral or minerals that may be included in the title.

TABLE 6

FREEHOLD COAL ASSESSMENT AND TAXATION

<u>YEAR</u>	<u>ASSESSMENT</u>	<u>MILL RATE</u>	<u>TAX</u>
1949	\$1,195,084.48	8	\$ 9,560.68
1950	1,264,787.02	8	10,118.30
1951	1,128,538.17	8	9,028.31
1952	1,138,003.59	8	9,104.03
1953	1,116,104.75	8	8,928.84
1954	972,102.13	8	7,776.82
1955	667,848.44	8	5,342.79
1956	594,245.92	8	4,753.97
1957	463,973.54	8	3,711.79
1958	504,534.34	8	4,036.27
1959	423,414.34	8	3,387.31







THE COAL MINERS REHABILITATION ACT: Late in the year 1953, it became apparent that some of the mines would be unable to continue to operate economically and in order to extend a measure of assistance in the rehabilitation of miners who would lose employment when coal mines closed down, the Coal Miners Rehabilitation Act (Exhibit IV) was enacted at the following session of the legislature and came into force on the eighth day of April, 1954.

The act provided for the Lieutenant Governor in Council to expend up to \$100,000 for any purpose that would assist in the rehabilitation of coal miners who became unemployed. The amount was increased by \$50,000 by an amendment to the act in 1958. The greater portion of the money was spent on the movement of families and their household effects from coal mining areas to other points in Alberta, and in a few instances to points as far east as Toronto and as far west as Vancouver Island. The number of families moved under government assistance from the various coal areas were:

<u>COAL AREA</u>	<u>NO. OF FAMILIES</u>
Coal Branch	294
Crow's Nest Pass	132
Drumheller	49
Canmore	6
Nordegg Area	<u>214</u>
	695

In addition to families moved at government expense, several single men were given transportation to points where work was available. In many instances, unemployed





1  
2 miners rehabilitated themselves in other employment without  
3 government assistance. Of the total of \$150,000 made  
4 available by the legislature, \$139,677.79 had been expended  
5 at the end of December, 1959.

6 THE COAL SALES ACT: Following representations  
7 made to the government over a lengthy period of time as  
8 to the desirability of having coal classified and graded  
9 for the benefit of consumers and regulation of operations,  
10 the Coal Sales Act (Exhibit V) was passed and came into  
11 force on the first day of July, 1953. The act provided  
12 for the Lieutenant Governor in Council to designate coal  
13 areas in the province and make regulations

14 (a) requiring the registration of trade names  
15 for coal mined in Alberta,

16 (b) requiring the use of the registered trade  
17 name in advertising, sale and shipping of coal and in  
18 documents relating thereto,

19 (c) respecting sampling and analysis of coal and  
20 the use of analyses,

21 (d) respecting the classification and grading  
22 of coal,

23 (e) prescribing the particulars concerning the  
24 coal and the place of mining to be stated in each shipping  
25 or other bill, invoice or weigh ticket,

26 (f) prescribing the records to be kept by whole-  
27 sale and retail dealers in coal, and

28 (g) for other matters relating to shipment and  
29 sale of coal.

30 After several meetings between officials of the  
Department of Mines and Minerals and representatives of







1  
2 coal distributors and coal operators, the regulations  
3 (Exhibit VI) were established on the 19th day of July,  
4 1954. The regulations mainly provided for classification  
5 of Alberta coals by groups and for size grading of Alberta  
6 coals. It was recognized at the time the act was passed  
7 that it would apply only to coal consumed in Alberta and  
8 could not extend beyond the borders of the province.  
9 However, it had been suggested that if Alberta would  
10 establish a coal sales act and regulations, there would be  
11 a good possibility that other provinces would enact similar  
12 legislation.

13 No other province has adopted similar legis-  
14 lation and now that coal mines in Alberta are faced with  
15 severe competition from other fuels, we are considering  
16 the advisability of suspending from the regulations the  
17 classification, grading and sizing of coal. There may be  
18 merit to existing mines having an opportunity to supply  
19 coal to any purchaser subject to the specifications of the  
20 purchaser.

21 CONCLUSIONS: A review of the various factors  
22 related to the coal industry in Alberta leads to the fol-  
23 lowing conclusions:

24 1. If coal from underground mines is to be  
25 available for use as an energy source in the event of a  
26 national emergency, some amelioration should be extended  
27 to enable underground mines to continue and, if possible,  
28 increase their present rate of production.

29 2. This amelioration might take the form of a  
30 national coal policy which would displace a reasonable  
amount of imported coal with coal produced in Canadian  
mines.







1  
2 3. A practical program of research should be  
3 pursued to find methods of utilizing coal to produce other  
4 forms of energy.

5 4. The subvention policy should be carefully  
6 reviewed to ensure that its objective of enabling Canadian  
7 coals to compete with imported coals, is being realized.

8 5. The examination of the freight and transport-  
9 ation of western coals should include consideration of  
10 movement by trainload lots.

11 All of which is respectfully submitted.

12 Thank you.

13 THE CHAIRMAN: Are you able to say what the  
14 total distribution of oil in this province now is? The  
15 main lines of carriage and the branch system to indicate  
16 to what extent the province is covered now by oil supply?

17 MR. SOMERVILLE: Well, possibly I should mention  
18 that in Alberta the oil supply basically goes to refiner-  
19 ies, and while there is some fuel oil which is distribu-  
20 ted in outlying areas, the main source of fuel now is  
21 natural gas.

22 THE CHAIRMAN: Is the distribution available  
23 to the greater part of the province? That is, the dis-  
24 tribution of oil by any means?

25 MR. SOMERVILLE: Yes, that is right. Any  
26 place in Alberta you can buy gasoline.

27 THE CHAIRMAN: No, I mean fuel oil or residual  
28 oil.

29 MR. SOMERVILLE: Well, it happens in Alberta  
30 that there are not too many people that utilize fuel  
oil for heat purposes.





1  
2 THE CHAIRMAN: What do they burn? Gas?

3 MR. SOMERVILLE: Natural gas.

4 THE CHAIRMAN: I was going to come to gas later.  
5 I was just wondering what the extent of your distributable  
6 area of oil was. You have refineries where?

7 MR. SOMERVILLE: Fuel oil can be -

8 THE CHAIRMAN: Where are your refineries of oil  
9 which produce fuel oil and residuals?

10 MR. SOMERVILLE: In the north commencing at  
11 Grand Prairie, in the Edmonton area and in the Calgary  
12 area mainly.

13 THE CHAIRMAN: Are there any mainlines of fuel  
14 oil that run anywhere within the province from which  
15 subsidiary lines will carry the oil to consuming centres?  
16 Anything of that nature?

17 MR. SOMERVILLE: No. Most of the transmission  
18 to market is not by pipeline.

19 THE CHAIRMAN: That is what I had in mind. I  
20 have no idea what way the distribution is made. I would  
21 like to have some idea -

22 MR. SOMERVILLE: Mainly by truck.

23 THE CHAIRMAN: -- of how the province is serviced  
24 with oil and to what extent?

25 MR. SOMERVILLE: As far as per cent is concerned,  
26 sir, I will have to get that figure for you.

27 THE CHAIRMAN: Well, can you let me have that  
28 information indicating just how available the distribution  
29 is. It may be by truck, I don't know.

30 MR. SOMERVILLE: That is it.

THE CHAIRMAN: It would have to be by truck from







1  
2 certain centres, or depots of some sort. It wouldn't  
3 all go from Calgary or Edmonton to all parts of the  
4 province, would it?

5 MR. SOMERVILLE: Well, by tank car and truck  
6 mainly. I mean it is taken by tank car to possibly a  
7 village or a town and it is distributed there from  
8 storage facilities.

9 THE CHAIRMAN: I see, so then you have no inter-  
10 nal pipeline system for oil?

11 MR. SOMERVILLE: For refined products?

12 THE CHAIRMAN: That includes fuel. I am con-  
13 cerned with fuel oil and the rest of the residual oils.  
14 You have no system of distribution by pipe to any extent?

15 MR. SOMERVILLE: No, mainly the pipelines in  
16 Alberta are for the transmission of crude oil to refin-  
17 eries and to the exporting pipelines.

18 THE CHAIRMAN: Then the distribution is avail-  
19 able from all the refining points? That is, the distribu-  
20 tion fuels?

21 MR. SOMERVILLE: Yes, sir.

22 THE CHAIRMAN: Have you any record at all of  
23 how expensive that distribution of oil is?

24 MR. SOMERVILLE: Well, I think Mr. Jackman -

25 MR. JACKMAN: Maybe I can help my lord. There  
26 are refineries at Grand Prairie, Edmonton, Wainwright,  
27 Lloydminster, and Calgary and the fuel oil is produced  
28 in all these centres and is available to local markets by  
29 truck, and also by tank car to different points in the  
30 province.

The main requirement for oil fuel oil is, I





1  
2 would say, in the very outlying areas, but the propane  
3 is the big competitor, and there is actually very little  
4 burned in the province.

5 THE CHAIRMAN: Where is the propane?

6 MR. JACKMAN: That will be distributed, my lord,  
7 from the different gas processing plants and there are  
8 a number of them in the province.

9 THE CHAIRMAN: How did you describe the plants?

10 MR. JACKMAN: Gas processing plants, my lord.

11 THE CHAIRMAN: Gas processing? It is obtained  
12 from gas?

13 MR. JACKMAN: It is, my lord, yes. The propane  
14 is obtained from the wet gas and those plants are  
15 scattered all over the western half of the province and  
16 there is gas storage facilities, you know, in the  
17 eastern part of Alberta where the propane is dumped down  
18 into a cavity of salt, deposited in the ground, and that  
19 can be stored there when there is a high market consump-  
20 tion and low production.

21 THE CHAIRMAN: Then would you say that for  
22 fuel purposes, either domestic or industrial, or power,  
23 oil is playing a minor role in this province?

24 MR. JACKMAN: My lord, not exactly for power  
25 because diesel fuel enters in there, and there is a great  
26 deal of diesel fuel --

27 THE CHAIRMAN: I have in mind all residuals.

28 MR. JACKMAN: Diesel fuel has a big role,  
29 especially in the railways now.

30 THE CHAIRMAN: Yes, you have the railways but  
I was thinking more of the domestic and the industrial.







1  
2 MR. JACKMAN: Well, the domestic, there is  
3 a certain amount of diesel fuel used on farms; diesel  
4 powered machinery on farms as well as gasoline machinery.

5 THE CHAIRMAN: Take the domestic use of oil;  
6 does that amount to anything in quantity?

7 MR. JACKMAN: Yes, quite a bit, my lord. There  
8 is, I think, about 68,000 barrels a day of oil refined  
9 in Alberta.

10 THE CHAIRMAN: Yes, and where is it consumed  
11 domestically?

12 MR. JACKMAN: That is all consumed in the  
13 province.

14 THE CHAIRMAN: I am excluding propane.

15 MR. JACKMAN: Well, that's consumed in the  
16 province of Alberta and in adjacent parts of British  
17 Columbia.

18 THE CHAIRMAN: That is largely domestic?

19 MR. JACKMAN: Yes, my lord.

20 THE CHAIRMAN: What about gas distribution?

21 MR. JACKMAN: Gas distribution is generally  
22 over all the settled areas of the province as far west  
23 as Hinton, west of Edmonton, goes as far west as Banff,  
24 west from Calgary here and all areas between Edmonton  
25 and the American border are supplied with gas. All these  
26 centres are.

27 THE CHAIRMAN: Can you say that gas is not  
28 excluding oil in some domestic uses?

29 MR. JACKMAN: It certainly is, sir.

30 THE CHAIRMAN: Is not. I assume that it is in  
many cases and you have mentioned that you have so much





1  
2 domestic supplied by oil.

3 MR. JACKMAN: Well, my lord, there is a great  
4 deal.

5 THE CHAIRMAN: If you don't mind, this is a  
6 Commission. Just speak to me, if you don't mind, as  
7 the Chairman.

8 MR. JACKMAN: Certainly, my lord. There is a  
9 great deal of mechanization on the farms in Alberta and  
10 a great many cars. We have one of the highest car  
11 population ratios in the world in the province here, and  
12 that accounts for a great deal of our refineries' produc-  
tion.

13 They use it on farm mechanization, railways,  
14 and automobiles. Well now, the natural gas has displaced  
15 the coal on most of the large markets. Coal has just  
16 been used where gas is not available.

17 THE CHAIRMAN: So the dominating fuel is  
18 gas?

19 MR. JACKMAN: The dominating fuel is gas.

20 THE CHAIRMAN: And this distribution is done  
21 throughout the province?

22 MR. JACKMAN: Throughout the settled areas of  
23 the province, yes.

24 THE CHAIRMAN: Throughout which?

25 MR. JACKMAN: The settled areas of the province.  
26 Like up in McMurray they don't have any.

27 THE CHAIRMAN: Generally speaking, that can  
28 apply to domestic, industrial and power?

29 MR. JACKMAN: That is right, sir.

30 THE CHAIRMAN: Have you any figures, can you  
give me more specific figures of the quantity of fuel,  
oils and gas used in that manner?







1  
2 MR. JACKMAN: I can certainly get them for you,  
3 sir.

4 THE CHAIRMAN: I would be obliged if you would.  
5 Thank you, Mr. Somerville. I would like to know what you  
6 have in mind when you speak of some kind of amelioration  
7 taking the form of a national coal policy. What thoughts  
8 have come to you regarding that?

9 MR. SOMERVILLE: We in Alberta have always felt  
10 that the underground mines should be maintained to a  
11 degree, so that there would always be personnel capable  
12 of operating underground mines, and this amelioration  
13 could take the form of subsidies to markets.

14 THE CHAIRMAN: Yes, subsidies payable by whom?

15 MR. SOMERVILLE: By the federal government, I  
16 would propose, sir.

17 THE CHAIRMAN: I suppose the province of Alberta  
18 is interested in its own mines?

19 MR. SOMERVILLE: That is true.

20 THE CHAIRMAN: I am just asking these questions  
21 for information. I was wondering why it should not have  
22 participated in the subsidy?

23 MR. SOMERVILLE: In Alberta where there is a  
24 choice of four fuels, that can be used domestically,  
25 the Alberta government feels that it is up to the people  
26 to choose. All kinds of people in Alberta are using  
27 natural gas, not because it is cheaper, but because it  
28 is nicer to use.

29 THE CHAIRMAN: But still you want to keep  
30 something alive in the interests of the province, as  
well as in the interests of the Dominion. I just would





1  
2 like to have your thoughts on this, because I know that  
3 you are greatly interested in it. Why should it not con-  
4 tribute to the sustenance of that life, as well as out-  
5 siders?

6 MR. SOMERVILLE: The feeling is, if it is done  
7 on a federal basis, that the people of Alberta will con-  
8 tribute their fair and just share.

9 THE CHAIRMAN: Then you do agree that they  
10 should contribute?

11 MR. SOMERVILLE: I say they will, if it is on  
12 a national basis.

13 THE CHAIRMAN: But nothing beyond the national  
14 incidence?

15 MR. SOMERVILLE: I could not agree that the  
16 province should go beyond that. It is true that the  
17 province has contributed in rehabilitation, and some  
18 things like that, but I do not think the province should  
19 pay a substantial portion of the burden if it affects the  
20 people in the province.

21 THE CHAIRMAN: This resource is yours. You have  
22 complete administration of it. You get complete benefit  
23 of it.

24 MR. SOMERVILLE: I suppose you could say that  
25 about anything that is in any province. It happens that  
26 coal is in three of the western provinces.

27 THE CHAIRMAN: I was just wondering. That  
28 very thing that you want to keep alive has been really  
29 strangled by something else that you want to promote.  
30 Well, I suppose you have different opinions on these  
things.







1  
2 I notice in the fourth conclusion you say,  
3 "Enabling Canadian coal to compete with imported  
4 coals."

5 Do you think that the question of competition  
6 is with imported coal?

7 MR. SOMERVILLE: There are areas in Canada  
8 where coal is still being substantially used.

9 THE CHAIRMAN: Yes, but do you think that even  
10 in those markets, that coal is the dominating fuel, the  
11 fuel that sets the price?

12 MR. SOMERVILLE: I have not thought about that,  
13 sir.

14 THE CHAIRMAN: Because they are complaining in  
15 Ontario and Quebec that the gas from Alberta is pushing  
16 coal out.

17 MR. SOMERVILLE: Do you mean on the basis of  
18 price, or desire to use the product?

19 THE CHAIRMAN: On the basis of price, except  
20 conceivably in some instances of thermal power production.

21 What has been the revenue of Alberta in the  
22 last ten years from the sale of oil and gas, leases and  
23 royalties on them? Have you any figures that you could  
24 obtain for me?

25 MR. SOMERVILLE: Yes, we have the figures for  
26 the last twelve-year period. Until the end of 1959, that  
27 has been about \$950 million.

28 THE CHAIRMAN: \$950 million. That includes both  
29 the sales price, that is the sales of leases and royalties?

30 MR. SOMERVILLE: Yes, royalties and the rentals.

THE CHAIRMAN: The sales, royalties and rentals.





1  
2 MR. SOMERVILLE: Yes.

3 THE CHAIRMAN: What would you suggest as the  
4 national policy? I have heard that expression used  
5 a great deal. It is a very easily used expression, and  
6 I would like to have something concrete as to what you would  
7 you propose?

8 MR. SOMERVILLE: As one suggestion, I would  
9 refer to the mining of gold. I personally do not think  
10 there is any great advantage in recovering more gold  
11 in Canada, but if the gold recovery was immediately shut  
12 off, it would have an adverse effect on the economy of  
13 Canada.

14 THE CHAIRMAN: Have you anything to suggest in  
15 respect to the subsidy of the federal government?

16 MR. SOMERVILLE: No, I do not think there is  
17 anything else that I can suggest. There is a possibility  
18 that encouragement might be extended to the electrical  
19 energy phase, to persuade new power plants to possibly be  
20 located where coal areas are. Unfortunately, at this time  
21 it is not too easy to transport electricity at a great  
22 distance, and we are hopeful that the time will come when el-  
23 ectricity can be economically transported to the distances  
24 where the operation of the power plant would be in close  
25 proximity to the deposit of coal.

26 THE CHAIRMAN: At the present time is there  
27 any limitation upon the oil production from the wells?

28 MR. SOMERVILLE: The markets are the limitation.

29 THE CHAIRMAN: I beg your pardon?

30 MR. SOMERVILLE: The available market is the  
limitation.







1  
2 THE CHAIRMAN: Is it regulated? Is there a  
3 fraction of the capacity output that is laid down as a  
4 maximum?

5 MR. SOMERVILLE: In Alberta, each month, those  
6 that wish to buy oil produced in Alberta make nominations  
7 to the Oil and Gas Conservation Board, and those nomin-  
8 ations are then totalled, and that allocation market is  
9 in turn divided between producing pools in Alberta, and  
10 then in turn what is allocated to a producing pool is  
11 then allocated to the wells producing from that pool.

12 THE CHAIRMAN: For the last year, what has been  
13 the average percentage reduction of total potential?

14 MR. SOMERVILLE: The reduction has ranged from  
15 60 to 65 per cent. The markets available have ranged  
16 between 35 and 40 per cent of the capable production of  
17 the wells on a sound engineering basis.

18 THE CHAIRMAN: Yes. That is what I had in mind.  
19 I suppose today oil and gas constitute the items of the  
20 greatest importance to the province?

21 MR. SOMERVILLE: Well, it is one of the greater  
22 items, but Alberta is basically a farming and ranching  
23 province.

24 THE CHAIRMAN: How long do you expect, or does  
25 your information enable you to say, that the position of  
26 gas and oil as it is today in its potential capacity will  
27 remain with the province?

28 MR. SOMERVILLE: I think it will continue to  
29 remain for some lengthy period.

30 THE CHAIRMAN: I know, but what would be that  
period? Would it be 35, 50 or 60 years?





1  
2 MR. SOMERVILLE: I would assume it would be  
3 at least 60.

4 THE CHAIRMAN: So maintaining the gasping coal  
5 industry for 60 years is the prospect, is it?

6 MR. SOMERVILLE: That is true. We just take our  
7 pattern from other assistances that are given in Canada  
8 for other types of industry.

9 THE CHAIRMAN: I am just asking you the facts,  
10 that is what is presented?

11 MR. SOMERVILLE: That is right.

12 THE CHAIRMAN: Do you think there should be any  
13 contraction in the coal production in this province?

14 MR. SOMERVILLE: I do not think that there  
15 will actually be contraction, I think if the coal produc-  
16 tion in the province will gradually increase for a while,  
17 as time goes on it likely will increase at a greater rate.

18 THE CHAIRMAN: Due to what factors?

19 MR. SOMERVILLE: The requirements for electrical  
20 energy.

21 THE CHAIRMAN: Anything beyond electrical  
22 energy?

23 MR. SOMERVILLE: And the possibility of the  
24 smelting of iron ore.

25 THE CHAIRMAN: You mean metallurgical prospects.  
26 Is oil used at all for the generation of electricity in  
27 this province?

28 MR. SOMERVILLE: It is in very limited circum-  
29 stances.

30 THE CHAIRMAN: What of gas?

MR. SOMERVILLE: Gas is used considerably more.







1  
2 Considerable of our electrical energy comes from water  
3 power.

4 THE CHAIRMAN: Do you think without subsidies  
5 coal can make any stand against both gas and oil in the  
6 generation of electricity?

7 MR. SOMERVILLE: I think it will, once the  
8 electricity can be transported a distance economically.

9 THE CHAIRMAN: Because of what? Because of the  
10 generation at the coal mine?

11 MR. SOMERVILLE: At the coal property.

12 THE CHAIRMAN: And does that apply to underground  
13 workings as well as strip workings?

14 MR. SOMERVILLE: It could very well.

15 THE CHAIRMAN: Have you made any attempts to  
16 estimate that in terms of costs? Do you think you could  
17 have underground workings of coal that will compete  
18 successfully with gas and oil without outside help?

19 MR. SOMERVILLE: I am sorry, I just cannot  
20 answer that, sir.

21 THE CHAIRMAN: Pardon?

22 MR. SOMERVILLE: I am sorry I cannot answer  
23 that.

24 THE CHAIRMAN: That is all right. You speak  
25 of the reserve of coal as 87 billion tons. Has that  
26 figure been the result of the revision of early estimates  
27 or is it what was put before the Commission in 1946?

28 MR. SOMERVILLE: This figure of 48 billion  
29 tons has been the figure that has been used extensively  
30 for a good number of years. As to its background and  
makeup, I do not think there was any very extensive





1  
2 exploratory operation to arrive at this figure. This  
3 figure was done more on an geological trend base than it  
4 was on any application of sub-surface investigation.

5 THE CHAIRMAN: Does that represent mineable  
6 coal?

7 MR. SOMERVILLE: Yes.

8 THE CHAIRMAN: I suppose it is distributed into  
9 the various analyses?

10 MR. SOMERVILLE: Yes, that is right, sir.

11 THE CHAIRMAN: So that was probably given to  
12 the Commission in 1946?

13 MR. SOMERVILLE: Yes, it was, sir.

14 THE CHAIRMAN: That is all, Mr. Somerville,  
15 thank you.

16 MR. GUNN: May I ask a question? Mr. Somerville,  
17 you mentioned in your opinion that you felt that after  
18 a few years coal will probably come back to a certain  
19 extent, is that right?

20 MR. SOMERVILLE: Yes.

21 MR. GUNN: Are there any plans that the provin-  
22 cial government has in mind to assist the coal industry  
23 during that transitory period, to your knowledge?

24 MR. SOMERVILLE: Basically, the approach of  
25 the province was to render some assistance to those  
26 miners that did become unemployed.

27 MR. GUNN: But that was just to transport them  
28 from point A to point B?

29 MR. SOMERVILLE: Yes.

30 MR. GUNN: But I mean the coal industry itself,  
not the individual workers who were working in pits,







1  
2 but the coal industry itself. Are there any plans to  
3 your knowledge?

4 MR. SOMERVILLE: None.

5 MR. GUNN: All right, thank you.

6 Just one more question, sir. You have listed  
7 on page 11 at the bottom of your brief which is Exhibit 44  
8 the number of families that did take advantage of the  
9 money supplied by the government to move from point A to  
10 point B. Have you any personal knowledge as to how many  
11 persons are left now in these respective areas that are  
unemployed?

12 MR. SOMERVILLE: Our Mr. Dutton is the department's  
13 representative on this. Mr. Dutton, would you care to  
14 comment on that?

15 MR. DUTTON: Well, in the Coal Branch Area, no  
16 mining families at all. No mining has been done at all on  
17 that Branch. At one time there were possibly up to 2,000  
18 coal miners operating, working in that area. In Crow's  
Nest Pass at one time there was -

19 MR. GUNN: Before you leave Coal Branch, are  
20 there any families there now who are unemployed to your  
21 knowledge?

22 MR. DUTTON: No, all the families have been  
23 moved out of there. There are a few working on the lumber  
24 mills and so on at Crow's Nest Pass. There are still  
25 quite a few families living there, and quite a few in  
26 Drumheller and in Nordegg, there is no change. As far  
27 as families moved out of the Nordegg are, that is what  
28 we call "close bound", so all the families from Coal  
Branch and Nordegg have been moved out of those areas.





1  
2 THE SECRETARY: Gentlemen, I have not had the  
3 opportunity of speaking to all of you. Therefore I will  
4 read the agenda, the order in which I will call your  
5 briefs. Eleven briefs will be heard in all. Secondly  
6 will be the brief of the Research Council of Alberta;  
7 third, the Coal Operators Association of Western Canada;  
8 four, Drumheller Coal Operators Association; five,  
9 Alberta Reclamation Association; six, the Canadian  
10 Institute of Mining and Metallurgy; seven, District 18,  
11 United Mine Workers of America; eight, Joint Crow's Nest  
12 Pass Towns' Committee; nine, City of Drumheller; ten,  
13 Lethbridge Chamber of Commerce; eleven, Calgary Power  
Limited.

14 I would like to call upon the second brief,  
15 Mr. Commissioner, now, which will be submitted by  
16 Dr. Norbert Berkowitz, Ph. D., on behalf of the Research  
17 Council of Alberta. That will become Exhibit 45.

18 ---EXHIBIT NO. 45: Brief of the Research  
19 Council of Alberta.  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30







SUBMISSION OF  
RESEARCH COUNCIL OF ALBERTA

Appearances:

Dr. Norbert Berkowitz, Ph.D., Head, Coal  
Division.

DR. BERKOWITZ: It is my privilege to present  
a brief which was prepared for this Commission by the  
Research Council of Alberta, which is a wholly government  
financed and supported research organization.

The brief inevitably deals with primarily the  
research work that the Research Council is carrying out  
on coal, but we hope that some of our general thoughts  
with respect to coal as a provincial resource will also  
emerge from this brief.

I have one apology to make, sir, owing to the  
unfortunate error of judgment, we failed to bring  
additional copies of the brief here from Edmonton. If  
any gentlemen would like such copies, if they would give  
me their names I would be very happy to arrange for these  
copies to be mailed to them as soon as we get back to  
Edmonton. I might now turn to the brief, sir.

Systematic and sustained coal research in  
Alberta began in 1919 when the provincial government est-  
ablished the Industrial and Scientific Research Council  
- later renamed the Research Council of Alberta - and  
charged this organization with the task of assisting in





1  
2 the orderly development of Alberta's natural resources.  
3 Since then, stimulated by the sheer immensity of Alberta's  
4 coal reserves (currently estimated (1) at about 48 billion  
5 tons, or 49 per cent of Canada's total reserves of mine-  
6 able coal of all types), the Research Council has made  
7 coal research one of its major activities.

8 2. This emphasis on coal research is maintained  
9 even though the indigenous coal industry has, during the  
10 past ten years, suffered a precipitous decline and now  
11 plays only a minor role in the provincial economy. We  
12 hold not only that the provincial coal resources constitute  
13 an invaluable insurance against future shortages of energy  
14 source materials, but that coal will play an increasingly  
15 important and diversified role in Alberta long before de-  
16 pletion of known (and assumed) gas and oil reserves.

17 3. In this submission, it is proposed to briefly  
18 summarize past research activities, and to outline present  
19 and projected programs and their bearing on the probable  
20 development of the Alberta coal industry.

#### 21 I. Past Work

22 4. Although the Alberta coal industry has at no  
23 time made a significant financial contribution to research  
24 programs undertaken by the Research Council during the  
25 twenties, thirties and forties tended to be directly deter-  
26 mined by immediate practical requirements of the industry.  
27 The primary need for information about the location and  
28 extent of coal occurrences, and for data bearing on the  
29 composition and properties of these coals, was met by  
30 geological exploration, sampling and systematic laboratory  
analyses. The outcome was the compilation of an Alberta







1  
2 coal "index" published as Report No. 35. A by-product  
3 of this work was the development of a classification  
4 scheme for indigenous coals (2) and the delineation of  
5 about fifty coal areas (3) - two achievements which  
6 greatly assisted industrial growth and subsequently also  
7 played an important role in the formulation of the Alberta  
8 Coal Sales Act.

9 5. Concurrently with these endeavours, and more particul-  
10 arly during the forties, major efforts were also made to  
11 develop appropriate means for the beneficiation of Alberta  
12 coals. Thus, extended researches into potentially suit-  
13 able techniques of coal cleaning were undertaken; problems  
14 associated with the disposal of coal slack were taken up  
15 by the exploration of various pelletizing processes;  
16 detailed studies were made of coal briquetting (both with  
17 and without binder additives); and the merits and  
18 possible local applicability of low and medium temperature  
19 carbonization processes were investigated. Close watching  
20 briefs were also maintained on several other technological  
21 developments likely to have a bearing on Alberta coal  
22 utilization in particular contingencies. For example,  
23 prior to 1947 (and the discovery of the Leduc oil field),  
24 detailed attention was given to processes for the conversion  
25 of coal into gaseous and liquid fuels and into synthetic  
26 chemicals.

27 6. It is also worth recording the Council initiated  
28 and perfected several analytical techniques peculiarly  
29 appropriate for the testing of Alberta coals - many of which  
30 did not behave well in the various tests then in vogue  
elsewhere - and that these efforts have materially





1  
2 contributed to the development of internationally accepted  
3 procedures (e.g., those now embodied in ASTM specifications  
4 for solid fuels).

5 7. More recently, researches have entailed further  
6 studies of coal cleaning by newly developed cyclone  
7 systems; a survey of the combustion characteristics of  
8 Alberta coals in an automatic domestic stoker and an  
9 industrial coal-fired boiler unit (The unit here referred  
10 to is the "Coal-Pak", a development of Bituminous Coal  
11 Research, Inc., of Columbus, Ohio, and Pittsburgh.) was  
12 undertaken; coal grindability was studied by an inter-  
13 nationally accepted test (This was the so-called Hardgrove  
14 test, which is regarded as unsatisfactory when applied to  
15 low-rank coals in general, and to Alberta sub-bituminous  
16 coals in particular) and a procedure developed by the  
17 Research Council; and fluidized coal carbonization was  
18 investigated as a possible method of obtaining high-  
19 calorific-value chars (for power generation) and chemical  
20 by-products in a single process.

21 8. Prior to 1952, all these manifold activities  
22 were undertaken by a small nucleus of specialists who, in  
23 certain instances, were also members of the University of  
24 Alberta teaching staff. Assistance came principally from  
25 post-graduate students preparing for their Master's Degree.

26 9. In 1952-53, when the growing impact of alternative  
27 fuels on coal utilization made it desirable to change from  
28 a predominantly industry-orientated research program to a  
29 resources-orientated one, steps were taken to enlarge  
30 the staff of the coal division and to broaden its base of  
operations by the inclusion of carefully selected basic







research programs. Since then, activities have developed into a research pattern which, in the light of the changed conditions of the industry, and of the probable trend of future developments, are deemed to be of direct interest and importance to Alberta. At the present time, this work is carried out by a staff of twenty, two-thirds of whom are professionally qualified individuals. (Six members of the staff hold Ph.D. degrees. In addition, two post-doctoral fellowships tenable in the coal division have recently been authorized.)

## II. Current Programs.

10. Of the applied researches presently in progress, three are concerned with fuel uses for coal and likely to find fairly direct (although not, perhaps, immediate) application. The first of these is a detailed examination of the theory and practice of pulverized coal combustion, and involves, as a first step, a mathematical analysis of the behaviour of coal particles in the pre-ignition and ignition regions of a furnace. Interest in these problems arose from known practical difficulties encountered by large pulverized coal-burning installations (such as thermal generating plant) and from the fact that such installations are likely to play a progressively increasing role in Alberta in the fields of power generation and industrial heating and steam raising. According to MacGregor and Reid <sup>(4)</sup>, provincial power demands are anticipated to climb to some 8,648 million kilowatt hours by 1985; and because of the acknowledged inadequacy of suitable hydro sites, it is expected that some 42 per cent of this power will be derived from coal. On the





1  
2 basis of these projections, it is estimated that the  
3 utility companies' demand for coal will reach between 2.5  
4 and 3.0 million tons per year by 1985. (Extensive pene-  
5 tration of fossil fuel-rich areas by nuclear power  
6 (derived from fission reactors) is unlikely in the period  
7 hereconsidered. The picture could be drastically altered  
8 if cheap fusion energy should become available; however,  
9 this is generally thought remote). A similarly sized  
10 coal demand has also been anticipated to be created by  
11 heavy and medium industry for which coal, because of  
12 probable price shifts between competing fuels, is thought  
13 to become an increasingly preferred fuel (5).

14 11. Experimental work which would follow the first  
15 stage of the investigation referred to in the preceding  
16 paragraph (and, at the same time, also yield information  
17 about the potentialities of high temperature carbon/oxygen  
18 fuel cells (Fuel cells are devices in which electrical  
19 energy is produced by chemical reaction. The particular  
20 case of a carbon/oxygen cell offers a possibility of  
21 converting coal (or char) into electric power with  
22 100 per cent efficiency instead of the more usual 30  
23 per cent efficiency achieved in thermal generating stations.)  
24 is being planned. It is hoped to accelerate the over-all  
25 study by close liaison with the coal combustion laboratory  
26 of the fuels division, Department of Mines and Technical  
27 Surveys (Ottawa) and with Alberta coal-burning power  
28 stations.  
29  
30







12. The second program is concerned with a study of hydraulic coal transport and was initiated with the hope of developing transportation techniques capable of eliminating freight differentials which currently impose serious limitations upon the competitive position of coal. The data shown in the accompanying table (below) may serve to illustrate that these differentials will quickly dissipate (sometimes over distances of less than 100 - 200 miles) any price advantage coal may enjoy at its point of production. (The data have been compiled by the Research Council in the course of a study of transportation costs in Alberta and Canada as a whole.)

You will notice, sir, that if one considers a short distance transport by truck or rail, these figures are about 8.3 to 8.5 cents per million BTU's per 100 miles in the case of fuel oil; 12.5 cents per million BTU's per 100 miles in the case of liquid petroleum gas. For coal it ranges from three to six times the cost of transporting fuel oil over short distances. In the case of long distance transport, the differentials are a little less, but you will notice that it costs approximately twice as much to shift coal as it does to shift natural gas, and indeed it costs approximately six times as much or more to ship coal than it does to ship petroleum by pipeline.

Transportation costs; cents per million Btu per 100 miles

	<u>Fuel Oil</u>	<u>LPG</u>	<u>Coal</u>
Short distance transport by rail or trucks	8.3 - 8.5	12.5	25 - 50
	<u>Natural Gas</u>	<u>Petroleum*</u>	<u>Coal</u>
Long distance transport; gas and oil by pipeline, coal by rail	1.3 - 2.5	0.4 - 0.7	2.6-4.7
*Corresponding tanker rates vary between 0.09 and 0.25 cents.			





1  
2 13. Since present high transportation costs hinder  
3 entry of Alberta coal into the Ontario coal market, the  
4 question of possible long distance transport by means of  
5 pipelines is most interesting. Current exploration of  
6 hydraulic coal transport has been limited to a study of  
7 coal-in-oil suspensions; however, our present preoccupation  
8 with coal-in-oil suspensions certainly does not rule out  
9 later examination of alternative schemes. For example,  
10 we believe that considerable merit may attach to pneumatic  
11 transport of coal (i.e., to transport of coal entrained  
12 in gas or air) and that this method may be particularly  
13 suitable for short distance moving of coal (e.g., from  
14 mine to a nearby power station). If laboratory studies  
15 should bear out this view, we believe it would be  
16 appropriate to spend public funds on the provision of a  
17 full-scale unit in which engineering studies and a final  
18 evaluation of the method could be made under actual field  
19 conditions.

20 (Even if technically quite feasible, pipelining  
21 of coal in Canada is unlikely to be implemented for several  
22 years. In the meantime, we venture to suggest that much  
23 could be done to reduce freight differentials and improve  
24 the competitive position of coal vis-a-vis other fuels by  
25 a revision of current subvention policies. If the sums  
26 now available to assist movement of western coal into  
27 eastern markets could, instead, be applied to coal destined  
28 for markets much closer to its point of production, freight  
29 disadvantages could easily be offset and the pattern of  
30 fuel consumption considerably rationalized. Such a move  
would certainly go further to encourage the use of coal for  
power generation than endeavours to persuade power stations







1  
2 to locate at (or near) mines and would, equally, induce  
3 other industry to consider coal in its fuelling plans.)  
4 14. The third of the investigations mentioned in  
5 paragraph 10 is devoted to a survey of technically and  
6 industrially important properties of Alberta coking coals  
7 and involves (or is planned to involve) studies of the  
8 plastic properties of these coals at elevated temperatures;  
9 a survey of the yields of liquid by-products obtainable  
10 from them by carbonization; and an exploration of the ef-  
11 fects of petrographic preparation and coal blending on  
12 plasticity and the character of the resultant cokes.

13 The overall program, which is strongly supported by basic  
14 laboratory studies (see below), is intended, on the one  
15 hand to explore the usefulness of indigenous coking coals  
16 as sources of metallurgical and industrial coke, and on  
17 the other, to gain preliminary information about their  
18 potential as starting materials in the production of struc-  
19 tural carbons and synthetic graphite.

20 15. The primary impetus to the study derives from  
21 growing interest in the feasibility of establishing an  
22 indigenous iron and steel industry (6). Such a venture  
23 would require about 300,000 tons of coal annually (7)  
24 (of both coking and non-coking varieties), and be based on  
25 iron ores occurring in Alberta itself (8) or imported into  
26 the province from Montana. There is also increasing evi-  
27 dence that Alberta coking coals may find significant  
28 markets outside Alberta. (Markets presently appearing to  
29 develop in Japan, although of unquestionable value to  
30 Alberta coal operators at this time are, however, not  
regarded as representing stable, long term markets.)





1  
2 16. From a long-term standpoint, however, very real  
3 interest centres also in the rapidly growing demand for  
4 industrial carbons other than coke. Examples of such  
5 carbons - sometimes termed "structural carbons" - are  
6 electrodes, acid-tank and blast-furnace linings, tower  
7 packings, catalyst supports, motor brushes, corrosion-  
8 resistant pipes and heat exchangers; all of these can be  
9 (and are already, particularly in England, being) made  
10 from coal. (While many of these products are currently  
11 manufactured by grog processes using petroleum coke, it  
12 appears that production from coking coal is simpler, cheaper  
and yielding superior products.)

13 There is incidentally the fact that petroleum  
14 coke is becoming somewhat scarce in some areas.

15 We believe manufacturing of this kind to be an  
16 operation for which Alberta (because of the ready avail-  
17 ability of suitable raw materials and a plentiful supply  
18 of low cost energy) would be a logical location, and that  
19 it could make a valuable contribution to the provincial  
20 economy even though the actual tonnages of coal required  
for processing would be relatively small.

21 17. The same is true of a range of other non-fuel  
22 products, such as synthetic graphite (in demand as a  
23 moderator in nuclear reactors) and filtration media.  
24 Exploration of several of these possibilities is planned.

25 18. The remaining applied projects currently under  
26 active study concern non-fuel applications of coal. One  
27 is designed to explore possible substitution of  
28 Alberta sub-bituminous coals for imported products in  
drilling mud additives, while the other (which potentially







1  
2 could involve very substantial tonnages of coal) is in-  
3 tended to test the usefulness of oxidized coal and humic  
4 acids as soil amendments. Both programs have reached  
5 the stage at which systematic field trials have been begun.  
6 (Humic acids are dark coloured, alkali-soluble solids of  
7 unknown constitution obtainable from oxidized (or weathered)  
8 coal.)

8 19. It should also be observed that as an adjunct  
9 to this work, and in response to representations by the  
10 Alberta Power Commission, a geological survey program has  
11 been initiated which aims at locating sites containing  
12 large reserves of coal amenable to strip mining.  
13 Present indications (accruing from two years' exploration)  
14 are that such sites may be relatively scarce and hence,  
15 that much of the coal thought to be required by the  
16 utilities companies will have to come from underground  
17 mines. In these circumstances, arguments for the  
18 maintenance of selected underground mines gain considerable  
19 force. (From a purely technical standpoint, the avail-  
20 ability of one such mine for experimental purposes would  
21 also be of real value: Among other matters, it would  
22 permit engineering studies of hydraulic mining - a method  
23 that is actively under investigation in Russia, and there  
24 now also used in some mines, but which does not appear,  
25 for one reason or another, to have been thoroughly ex-  
26 plored elsewhere.)

25 20. Basic researches currently in progress in  
26 Council's laboratories are designed on the one hand, to  
27 support the applied projects, and on the other, to explore  
28 facets of coal utilization which, while only likely to  
29  
30





1  
2 become practical in the future, certainly lie on lines  
3 along which development is highly probable. The premises  
4 on which these programs have been selected are, broadly,  
5 these:

6 First, that the indigenous coal industry, as  
7 presently constituted, can look forward to some growth  
8 (and a real measure of viability), but that the degree of  
9 prosperity that it can expect to attain will be determined  
10 by economic factors (such as the competitive position of  
11 coal vis-a-vis natural gas and petroleum) over which conven-  
tional research has little, if any, direct control.

12 Secondly, that traditional (fuel) uses of coal  
13 will, with assistance from such investigations as ment-  
14 ioned in paragraphs 10 - 14, - that is the investigation  
15 of coal combustion and transportation, and so on - tend  
16 to find their own level, but that this level is not com-  
17 mensurate with the true potential which Alberta's coal  
resources hold.

18 And thirdly, that provincial interests in proper  
19 and effective utilization of these resources focus atten-  
20 tion upon novel, unconventional use-schemes for coal for  
21 which preparation by way of research and development is  
22 now timely.

23 21. We suggest, in other words, that intensive coal  
24 research in as fuel rich an area as Alberta merits full  
25 support and that such research ought to be conducted even  
26 if the present indigenous coal industry should wither  
27 entirely. (The only alternative is, evidently, to releg-  
28 ate coal to a position of bed rock and thereby to immobilize  
29 the largest and potentially one of the most valuable of  
30







1  
2 the provincial resources. We would consider such a course  
3 of action detrimental to the public interest.)

4 22. With these considerations in mind, much of the  
5 basic research effort has been concentrated on areas that  
6 each bear on several non-fuel uses. An illustration is  
7 afforded by a detailed inquiry, now beginning to reach  
8 some fruition, into the physical and chemical processes  
9 accompanying coal carbonization. Details of this work,  
10 which are inevitably highly specialized, need not be given  
11 here. But it might usefully be observed that the program  
12 not only supports the applied investigations of Alberta  
13 coking coals (see paragraph 14) but leads also into pro-  
14 jected studies of carbon manufacture (paragraphs 16 and  
15 17) and of processes likely to increase by-products yields.

16 23. Similarly, chemical studies forming part of the  
17 inquiry into coal carbonization mechanisms may assist in  
18 the development of processes utilizing certain primary coal  
19 derivatives (such as solvent extracts) whose physical  
20 properties are also under investigation.

21 24. And finally, mention should be made of a  
22 comprehensive program concerned with the structure and  
23 properties of humic acids (see paragraph 18). Information  
24 about these substances, and in particular about the mode  
25 of interaction between them and clays, is relevant in  
26 connection with the investigations referred to in paragraph  
27 18, that is the investigation into the use of humic acids  
28 and oxide coal slag as soil amendment, and also constitutes  
29 a necessary precursor to possible chemical utilization  
30 (e.g., in plastics).

25. Processes for the conversion of coal into gaseous





1  
2 and liquid fuels, or into synthetic chemicals, are not  
3 currently under active investigation. But a watching brief  
4 is maintained on developments in these fields, and the time  
5 for initiating some work in this area may not be far off.  
6 This is particularly true of researches designed to improve  
7 catalysts (and thereby to better the economic status of  
8 these processes). The ultimate importance of these methods  
9 to Alberta cannot be overemphasized: Their technical (and  
10 economic) promise makes the indigenous coal reserves an  
11 invaluable insurance against future energy shortages and  
12 allows steady depletion of present oil and gas reserves  
13 by profitable export to be contemplated without undue  
14 concern. It should, in this connection, be noted that  
15 synthetic gaseous and liquid fuels manufactured from coal  
16 can be expected to meet all demands presently made of  
17 their natural counterparts; that they could be transported  
18 by the same system of pipelines; and that their costs  
19 to the Alberta consumer should, at any given point in  
20 time, prove to be no greater than those incurred by using  
21 natural gas or petroleum.

#### 22 Conclusions

23 26. In the preceding paragraphs, an attempt has  
24 been made to show that scientific and engineering research  
25 can (and does) play a major role in developing a pattern  
26 of effective coal utilization, and that this pattern must  
27 be concerned with both fuel and non-fuel uses of coal.

28 27. From a short-term standpoint, we would urge that  
29 research into other methods of transportation requires  
30 immediate intensification. Apart from a study of pipeline  
transportation, there is, in particular, real need for







1  
2 investigations into long distance electricity transmission  
3 (which could open eastern power markets to western produced  
4 coal). Attention ought similarly be given to novel mining  
5 techniques that may increase production of coal for  
6 power generation. And finally, current subvention policies  
7 might usefully be re-examined with a view to modification.

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24 Thank you.

25 THE CHAIRMAN: Well, you opened up vistas of  
26 possibilities at least.

27 MR. BERKOWITZ: That, sir, was our intention.  
28 We feel very strongly that on the one hand there will be  
29 a growing pattern of coal utilization in conventional  
30 energy fields but we feel also that if one looks at coal





1  
2 as a provincial resource, there are other things that  
3 can be done with it, and the products that can be made  
4 from it are of high varieties so that their contribution  
5 to the provincial economy can be considerable even  
6 though the quantity of coal used would be small.

7 THE CHAIRMAN: Yes, because it is of great  
8 value.

9 MR. BERKOWITZ: Yes, sir.

10 THE CHAIRMAN: In many lines of application.

11 MR. BERKOWITZ: That is right, sir.

12 THE CHAIRMAN: What do you think of the  
13 possibility of any of these being realized within the  
14 next thirty-five to fifty years as enabling coal to  
15 re-establish its position in the provincial economy?

16 MR. BERKOWITZ: I would like to answer that  
17 question in two parts, if I may, sir. I think the  
18 possibility of using coal for carbon manufacture within  
19 the period that you mention is excellent indeed.

20 There are three or four groups now who have  
21 approached us during the last few months seeking infor-  
22 mation on these matters, and I would assume that some  
23 sort of carbon manufacture will start in the province  
24 certainly within, let us say, the next decade.

25 However, this is an industry that uses coal  
26 as a raw material. Its value to the province lies in  
27 the differential between the cost of the raw material  
28 and the cost of the finished product. The amount of  
29 coal likely to be used will be quite small, so that  
30 certainly that is not something that could be looked  
upon as a means of reviving a traditional coal mining







1  
2 industry, you see.

3 It is, of course, possible that the coal  
4 industry might take these very profitable ventures under  
5 their own wing and thereby restore an economic balance.

6 THE CHAIRMAN: Well, you look forward to a  
7 time, which is indefinite, at which the scientific know-  
8 ledge and technology will be able to make use of these  
9 in a more efficient and utilizable manner?

10 MR. BERKOWITZ: Yes.

11 THE CHAIRMAN: That is obviously something in  
12 the future.

13 MR. BERKOWITZ: Yes.

14 THE CHAIRMAN: And in you opinion that is the  
15 justification for maintaining the viability of the coal  
16 as it exists today?

17 MR. BERKOWITZ: No, sir. In my personal  
18 opinion, the main argument for maintaining the underground  
19 mines in the province is precisely that the original argu-  
20 ment that the utility companies' demand could be met by  
21 strip mining may not be valid.

22 THE CHAIRMAN: May not be valid?

23 MR. BERKOWITZ: Yes. You see, we originally -  
24 at least the argument that I have always seen since I  
25 came to this province was that when the utility companies'  
26 demand for coal for power production increased, as has  
27 been expected - the figures I have quoted would lead to  
28 something around 3 million tons a year by 1985 and probably  
29 going beyond that - it has always been expected that  
30 these coal demands could be met by cheap strip mining  
methods working suitable deposits within the province.





1  
2 Now, such limited geological prospecting as  
3 we have done in the plains areas in Alberta suggest, it  
4 doesn't prove but it suggests that we may not have enough  
5 of such strip sites.

6 THE CHAIRMAN: To supply the demand for power?

7 MR. BERKOWITZ: To supply the demand for  
8 power and that therefore that means that such coal  
9 demand by the utility companies will in a large measure  
10 have to be met by underground mines, and that is, in my  
11 personal view, the argument for maintaining such mines  
12 during the interim period until this demand for coal  
13 builds up.

14 THE CHAIRMAN: Well, I don't think it is  
15 different from what I suggested. It means that you maintain  
16 them over this period until you get a demand for coal  
17 that is more or less similar to the demand today.

18 MR. BERKOWITZ: Yes, that is right.

19 THE CHAIRMAN: And therefore it is a question  
20 of the preservation of provincial assets for probable  
21 future demand.

22 MR. BERKOWITZ: That is right, sir.

23 THE CHAIRMAN: I suppose some research has been  
24 carried on in Ottawa along some of the lines you mentioned?

25 MR. BERKOWITZ: We tend to dovetail our research,  
26 to some extent, and avoid duplication. On the whole the  
27 main approach that we have taken in recent years is not  
28 being duplicated at Ottawa, and we are attempting to  
29 maintain very close liaison so that we can build up a  
30 composite research pattern.







1  
2 THE CHAIRMAN: I suppose researches of the  
3 same nature are taking place in all the coal-furnishing  
4 countries of the world.

5 MR. BERKOWITZ: That is right.

6 THE CHAIRMAN: There is tremendous research  
7 in the United States.

8 MR. BERKOWITZ: That is true.

9 THE CHAIRMAN: And in England?

10 MR. BERKOWITZ: Yes.

11 THE CHAIRMAN: In Germany?

12 MR. BERKOWITZ: Yes, this is true also. The  
13 emphasis tends to be different in different countries,  
14 and of course each institution prides itself upon pro-  
15 ducing a few original ideas.

16 THE CHAIRMAN: Yes, I see. Of course, in that  
17 sense science has won throughout all the areas.

18 MR. BERKOWITZ: Yes, we obviously base a  
19 great deal of our work on the literature and personal  
20 contacts with other coal research workers elsewhere.

21 THE CHAIRMAN: Thank you, Dr. Berkowitz.  
22 If I might say so, this is a very fine analysis of the  
23 thesis you were submitting.

24 THE SECRETARY: Mr. Commissioner, I would now  
25 like to call upon Mr. W. C. Whittaker who will present  
26 a brief on behalf of the Coal Operators' Association of  
27 Western Canada. This brief will become Exhibit 46.

28 ---EXHIBIT NO. 46: Brief on behalf of the Coal  
29 Operators' Association of  
30 Western Canada.





1  
2 SUBMISSION OF  
3 COAL OPERATORS' ASSOCIATION  
4 OF WESTERN CANADA  
5

6 Appearances:

7 Mr. W. C. Whittaker, Managing Director, The Coal  
8 Operators' Association of Western Canada.

9 Mr. William Bird, Retail Coal Operators Association  
10

11 Mr. R. D. Livingstone, Retail Coal Operators  
12 Association  
13

14 MR. WHITTAKER: Mr. Commissioner, I would like  
15 to introduce first Mr. William Bird of the Retail Coal  
16 Operators Association; Mr. R. D. Livingstone, who represents  
17 that same association. If you do not mind, I would prefer  
18 to sit down to read this brief.

19 THE CHAIRMAN: Yes, make yourself at home. If  
20 you would speak a bit louder, sometimes it will be able  
21 to be heard by all.

22 MR. WHITTAKER: Yes, sir.

23 PART I

24 I - INTRODUCTION

25 This brief deals with the coal industry of Alberta  
26 and British Columbia and is submitted on behalf of the Coal  
27 Operators' Association of Western Canada, which organization  
28 represents interests who jointly produce over 90 per cent  
29 of all of the semi-anthracite and bituminous coal mined  
30 in the two provinces. This constitutes approximately one-half







of the coal mined by underground methods and one-sixth of that produced by strip mining.

## II - HISTORY

Coal production in Alberta and British Columbia reached a maximum in 1949 but has progressively decreased until it is now at the same level as in the year 1910. (For complete record see page 38).

The following comparison will illustrate what has taken place in the last eleven years:

	<u>Production</u>	<u>Employment</u>	<u>Value of Production</u>
1949	10,523,818 tons	11,113	\$55,442,713
1959	3,307,032 "	2,763	18,364,811

You will see that the production has dropped from ten million to three million; employment from eleven thousand to twenty-seven hundred, and value of production from \$55 million to \$18 million.

The principal reasons for the deterioration of the industry in the two provinces are:

(a) the dieselization of the railways which is now virtually complete; and it has resulted in the loss of three million tons per annum;

(b) heavy inroads into traditional coal markets by alternate fuels which became available with the large-scale discoveries of petroleum and natural gas in the four western provinces commencing in 1947.

This competition by alternate fuels has progressed and increased despite the extensive mechanization of the industry and the fact that coal output in tons per manshift is more than double that of any of the





1  
2 European countries, and second only to that of the  
3 mines of the United States which have the highest per  
4 capita production in the world. Moreover, these high  
5 production levels have been attained despite the fact  
6 that most of the Alberta and British Columbia under-  
7 ground coals are produced under such adverse conditions  
8 as pitching seams and weak roofs and pavements which  
9 make mechanization technically difficult and require  
10 a high capital investment per ton of coal produced.

11 III - THE FUTURE OF THE CANADIAN COAL

12 INDUSTRY

13 The population of Canada is presently estimated  
14 at about 17,500,000 people, and it is predicted by 1980  
15 this figure will reach 26,500,000, or an increase of  
16 about 50 per cent in the next twenty years. At the same  
17 time, the consumption of energy is mounting steadily,  
18 and at an ever greater rate than the population increase,  
19 so that in another twenty-five years, our energy consum-  
20 ption is likely to be at least double that of today.  
21 We are therefore faced with the problem of finding and  
22 making available a huge increase in energy reserves  
23 to meet the demands of the future, while at the same time  
24 making the most efficient utilization of the currently  
25 available supply.

26 At the present time, the most useful energy,  
27 as we know it, is the chemical energy contained in  
28 coal, petroleum and natural gas, and all of these fossil  
29 fuels occur in great quantity in western Canada.

30 For many years Alberta and British Columbia  
have been known to contain large tonnages of coal of







1  
2 all kinds with recoverable reserves being estimated  
3 at some 33 billion tons, or enough to last several thou-  
4 sand years at recent rates of consumption.

5 Within the past fourteen years, Canada has  
6 progressed from a position of deficiency in liquid and  
7 gaseous fuels to one of oversupply, so that many  
8 people have come to believe the reserves of these hydro-  
9 carbons are practically unlimited. The fact remains,  
10 however, that even if we accept as valid the most optim-  
11 istic estimates which have been made to date for liquid  
12 and gaseous fuels, there is still about twenty times  
13 as much energy contained in proven coal reserves as in  
all of the other fuel sources combined.

14 The disturbing factor which arises out of the  
15 above comparison is this: Some 66 per cent of our present  
16 total energy consumption is derived from petroleum and  
17 natural gas which together constitute less than  
18 five per cent of our fossil fuel reserves. At the same  
19 time, our present economy is based to a large extent on  
20 the internal combustion engine which uses liquid fuel.  
21 For this reason the need for an assured and adequate  
22 supply of petroleum at economic cost looms large when we  
consider our future energy requirements.

23 We are also using large quantities of natural  
24 gas at rapidly accelerating rates and the wellhead cost  
25 of this gas is increasing just as rapidly. With the great  
26 increase forecast for the future, the question arises  
27 as to whether or not the discovery of the necessary  
28 reserves of liquid and gaseous fuels can keep pace  
29 indefinitely with requirements and at what cost. All of  
30





1  
2 which points to the necessity of an integrated fuel  
3 policy with each fuel, - coal, petroleum and natural gas,  
4 being used primarily for the purpose to which it is best  
5 suited.

6 Since so large a portion of our current energy  
7 use is based on so small a fraction of our known  
8 resources, it seems a short-sighted policy to look upon  
9 coal as an outmoded fuel and on the coal industry as an  
10 expendable one which can be allowed to disintegrate.  
11 It is contended that if western Canada is to realize  
12 its hopes of major industrial development and a well  
13 rounded economy rather than be content with simply export-  
14 ing its raw materials, substantial utilization of its  
15 coal reserves will be required in the not too distant  
16 future.

17 Coal, coke and power produced by coal have  
18 provided the basis for the industrial growth of all of  
19 the larger nations in the last century, and this situ-  
20 ation is not likely to be significantly changed in the  
21 foreseeable future. There are indications that metallur-  
22 gical industries are soon to be developed in western  
23 Canada and these, like similar industries elsewhere,  
24 will rely heavily on coal, coke and power. The continued  
25 availability of coal will also ensure that price for the  
26 other sources of energy will be maintained at reasonable  
27 levels.

28 While it is true that coal reserves will not  
29 deteriorate if left in the ground, it is equally true  
30 that the physical and human resources necessary to make  
this fuel reserve available on reasonably short notice





will pass out of the picture unless appropriate steps are taken now to see that this does not occur.

#### IV - RECOMMENDATIONS

To the end that the coal industry and its contribution to the economy of the country will not be lost, we offer the following recommendations:

##### RECOMMENDATION NO. 1

That government policy should ensure the maintenance of a sound and healthy coal industry because

(a) The great bulk of our energy reserves are in the form of coal. Recoverable coal reserves in Alberta and British Columbia are estimated at 13 billion tons, or more than twenty times the coal reserves of the United States.

(b) We should not allow ourselves to be misled by the fact that the United States has a large reserve of oil. It is a mistake to suppose that the United States has a large reserve of oil. The fact is that the United States has a large reserve of oil, but it is a mistake to suppose that the United States has a large reserve of oil. The need for the continued development of reserves is pointed out by the report of the Secretary of the Oil and Gas Institute. The report states that the fact that exploration for petroleum has been progressing at a rapid rate in the United States within a few years of the war is a fact that should be taken into account. We should not allow ourselves to be misled by the fact that the United States has a large reserve of oil. The fact is that the United States has a large reserve of oil, but it is a mistake to suppose that the United States has a large reserve of oil.







1  
2 What we do suggest is, that if these liquid and  
3 gaseous fuels are used for the purposes which could  
4 be performed just as efficiently by coal, the sooner  
5 we will be required to replace present supplies at  
6 increased costs. For example: In the United States,  
7 because of the great demand that exists, the wellhead  
8 price of natural gas has doubled in the past ten  
9 years. In this country, we have seen the wellhead  
10 price of gas increase from  $4\frac{1}{2}$  cents per mcf to a  
11 present price of  $14\frac{1}{2}$  cents in the space of a few  
12 years. Present gas contracts generally provide for  
13 escalation at  $\frac{1}{4}$  cent per mcf per year so that gas  
14 contracted for now will be delivered twenty-five years  
15 hence at 20 cents per mcf. In the United States,  
16 some recent field price contracts have run more than  
17 30 cents per mcf. Price trends in Canada are al-  
18 most certain to follow the same pattern.  
19 In the case of liquid fuels, the cost of replacement  
20 per barrel of petroleum increases year by year as  
21 the search for oil extends to the more inaccessible  
22 parts of the country.  
23 The argument has been advanced that nuclear power  
24 will to a large degree render petroleum, natural gas  
25 and coal obsolescent in a few years, or that thermal  
26 power can now be produced on a competitive basis  
27 using uranium as a fuel. While these statements may  
28 be true in part for limited applications and in  
29 remote and high fuel cost areas, they do not apply to  
30 to Canada in general -- or to western Canada in par-  
ticular -- and reliable information in this regard





1  
2 indicates that it will be at least twenty-five years  
3 before any significant portion of our electric utility  
4 requirements is produced by nuclear power at compet-  
5 itive costs.

6 It would appear therefore that there is need for an  
7 integrated fuel policy which would recognize the  
8 areas in which each type of fuel could be of maxi-  
9 mum service in the resource picture of the country.  
10 We are spending one and one-half billion dollars per  
11 year to provide for the defence of Canada, and the  
12 success of our defences depends in great measure on  
13 adequate and readily available sources of fuel  
14 energy. Coal is a cheap strategic material and is  
15 in a readily available form for use. We have wit-  
16 nessed shortage of other fuels in the past and this  
17 could happen again.

18 (c) If we allow our coal industry to disintegrate, it  
19 will be necessary to start again from scratch at  
20 high investment cost. This will involve considerable  
21 time lag to bring production back to a suitable  
22 level. While strip mining will fill part of this  
23 need, the types of strip coal available have limited  
24 application. Moreover, they are generally of lower  
25 rank and lower BTU content so that it is not economic  
26 to ship them long distances. These coals should be  
27 used at the pithead where possible. In any case, the  
28 great proportion of our coal deposits have been so  
29 laid down as to be recoverable only by underground  
30 mining methods.

31 (d) If a healthy nucleus of the industry is not main-  
32 tained, skilled workmen will drift out of the indus-  
33 try and few new workmen will be trained. Experienced





1  
2 and competent engineering and supervisory personnel  
3 are already a scarce commodity and will become even  
4 more so unless there is some incentive to remain  
5 in or become part of the industry. Many employees  
6 in mining towns own their own homes and the presently  
7 operating companies have large investments in plant  
8 and equipment. All of these facilities, including  
9 some large reserves of already developed underground  
10 coal, will be lost unless a minimum market is main-  
11 tained to keep a reasonable nucleus of the industry  
in existence.

12 (e) The U. S. S. R., a country in much the same stage  
13 of development as our own and with a vast northland  
14 similar to ours but much larger in size and richer  
15 in natural resources such as coal, petroleum and  
16 natural gas, has not written off coal.  
17 In 1958 the Soviet Union produced 529 million tons  
18 of coal and a recent editorial in the official  
19 Soviet newspaper "Izvestia", in discussing the rapid  
20 strides being made in the discovery and development  
21 of natural energy fuels in the Soviet Union, commen-  
ted:

22 "Therefore in working out the long range plan for  
23 development of our national economy, we are prov-  
24 iding for the extensive but integrated use of  
25 oil, gas and coal for power plants, industry and  
26 transportation. This plan calls for considerable  
27 increase in the extraction of energy fuels and  
28 for their increased utilization in the national  
29 economy. We intend to keep a very watchful eye  
30





"on the country's natural energy fuels balance."

RECOMMENDATION NO. 2:

That the federal and provincial governments jointly recognize the need for an integrated fuel policy which would provide for the maximum efficient and economical use of each energy source, while at the same time exercising sound principles of conservation in the best long term interests of the nation.

In this respect, we present the following observations and suggestions:

- (a) It is generally recognized that natural gas, liquid gases and fuel oil possess certain features which make them attractive for home and water heating; for certain commercial applications and process work where close temperature control is necessary. For similar reasons, the diesel engine has supplanted the coal-fired steam locomotive in railway transportation. The coal industry recognizes these trends and agrees that the primary and principal use of liquid and gaseous fuels should be made in these fields leaving certain domestic and commercial heating, industrial steam raising, industrial and institutional heating, metallurgical reduction and thermal power plant fields to be served primarily by coal.
- (b) Because of oversupply and lack of markets, some of the competing fuels, particularly natural gas, are being sold at prices considerably less than their intrinsic worth. As a result, where pipeline gas





1  
2 has been available, other fuels, and coal in partic-  
3 ular, have been driven out of almost every available  
4 market.

5 Gas has been able to displace competing fuels at  
6 will by means of the two-part pricing system which  
7 provides it with a very flexible mechanism whereby  
8 prices can be adjusted and rationalized to meet  
9 almost any competitive situation. It is the conten-  
10 tion of the coal industry that this practice involves  
11 unfair competition because --

- 12 (1) Large quantities of gas are being sold for indus-  
13 trial purposes during periods of load buildup at  
14 prices below the full cost of providing the ser-  
15 vice and at such levels as are necessary to cap-  
16 ture the business from competitive fuels.
- 17 (2) It drives all of the other competitive fuels out  
18 of the market. Later, when competition is removed,  
19 the price is increased. -- In other words, the  
20 low prices are available only until more lucrative  
21 markets are found.
- 22 (3) Such practices advance the date when new supplies  
23 of gas must be purchased at higher prices.
- 24 (4) The "captive" commercial and domestic consumers  
25 pay more than they otherwise would for their gas.
- 26 (5) The practice involves competition with which no  
27 other fuel can possibly compete -- not even pet-  
28 roleum.
- 29 (6) The producer recives an inadequate price for  
30 the gas at the wellhead.

It is to be noted that in 1958 only 36 per cent of  
the quantity of natural gas sold in Canada was used







1  
2 for the purpose of domestic heating, while 64 per  
3 cent was used for industrial and commercial purposes.

4 (c) It is not suggested that the use of liquid and  
5 gaseous fuels should be confined in all cases to the  
6 "premium" uses outlined in (b) above. These fuels,  
7 however, should be directed or encouraged to improve  
8 the character of their loads and should not be allowed  
9 to indiscriminately capture all of the business  
10 available simply to achieve a maximum load factor.  
11 It is suggested that instead of an outright prohib-  
12 ition, natural gas companies should be required to  
13 maintain a certain minimum percentage of their busi-  
14 ness in the "premium" fuel field and that some restric-  
15 tions be placed on additional sources of supply so long  
16 as minimum requirements are not met.

17 Natural gas is a fuel which can be transported  
18 economically by long distance pipelines and so can  
19 reach out to distant areas to supply the "premium  
20 use" fields. It is also a source of petro-chemicals  
21 and by reason of its special characteristics should  
22 be used primarily for purposes for which it is  
23 specially suited.

24 It will be argued that large industrial loads are  
25 necessary to achieve high load factors and to meet  
26 the terms of "take or pay" supply contracts. The coal  
27 industry, however, feels that these factors are  
28 being over-stressed and there must be some happy  
29 medium which would strike a proper balance between  
30 the various competing fuels, and at the same time  
recognize the need for conservation and the best poss-  
ible over-all use for all of these resources.





RECOMMENDATION NO. 3:

That the federal and provincial governments concerned should co-operate in measures which would make available to the coal industry a certain additional minimum tonnage of say, one million tons per annum, which would ensure the continued economic operation of a nucleus of underground mining operations. In this regard, we suggest that the Dominion Coal Board, which body has a most complete knowledge of the overall fuel picture in Canada, be the agency charged with the responsibility of administering this recommendation .

In this connection, we have the following observations and suggestions to make:

(a) The logical and most economic markets for coal are:

- (1) Home and water heating in rural areas and small communities where natural gas is not available.
- (2) Institutional and large commercial and industrial heating.
- (3) Coal and coke for metallurgical reduction.
- (4) Thermal power production.
- (5) Metallurgical coal and coke for sale within Canada and metallurgical coal for export to the U. S. A. and to the orient.

(b) Domestic heating: In the field of domestic heating it is probable that coal will continue to lose ground. The widespread use of natural gas for home heating and the increasing employment of fuel oil for this purpose in areas not served by gas, has already captured the bulk of this market and the convenience offered by gas and fuel oil will make a return to







1  
2 coal improbable in most urban areas. There will,  
3 however, remain a certain hard core of domestic coal  
4 markets particularly in rural areas where natural  
5 gas pipelines will not be economic and where price  
6 will be a real consideration rather than completely  
7 automatic operation. In such cases, coal will fill  
8 a real need for an always available, practical and  
9 economic fuel.

10 In recent years the seasonal character of the domes-  
11 tic heating business has been accentuated with the  
12 great bulk of sales being crowded into the five-  
13 month period, September to January inclusive.

14 In order to provide additional coal for immediate  
15 delivery during the peak of the heating season, some  
16 producers have resorted to the mining and storing  
17 above ground of increasing quantities of coal during  
18 the months of July, August and September. While this  
19 involves additional expense, such procedure has  
20 proven effective in the matter of supply and has  
21 considerably lengthened the working season for the  
22 employees. It has been suggested that the government  
23 might consider the payment of part of the cost of  
24 the storage program as an offset to the unemployment  
25 insurance cost which might otherwise have accrued.

26 (c) Institutional Heating: Some fairly large tonnages  
27 of coal could be used for institutional heating  
28 both in Alberta and British Columbia where it would  
29 be both economic and efficient when used in modern  
30 automatic coal firing and ash handling equipment.  
In Alberta there are few, if any, government institutions





1  
2 of any size presently burning coal. In British  
3 Columbia the situation is not much better. This is  
4 a field where the provincial governments could be of  
5 assistance to the coal industry. Their example in  
6 making the utmost use of coal would be the best  
7 possible indication of the extent of their interest  
8 in the industry.

9 It is to be noted that a large number of new heating  
10 plants are being installed to burn liquid and gaseous  
11 fuels only. The same is true of the type of chimney  
12 which building codes presently permit. The coal  
13 industry believes this to be a shortsighted policy  
14 and feels that this is an area where positive govern-  
15 ment action could well be taken.

16 As regards the use of coal for institutional heating,  
17 the federal government has issued the following dir-  
18 ectives:

19 "On March 18, 1955 --

20 (1) that, before the fuel burning equipment in any  
21 government building or building under government  
22 control which consumed 500 tons of coal per annum  
23 or more was changed from coal to other fuel, the  
24 department concerned would consult with the Dom-  
25 inion Coal Board or the Interdepartmental Fuel  
26 Committee about economies expected and other rel-  
27 evant factors; and,

28 (2) that, before any decision was made with regard  
29 to the type of fuel to be used in any government  
30 building or building under government control of  
a size which would require 50 tons of coal or more  
per annum, the department concerned would consult  
with the Dominion Coal Board or the Interdepartmental







1  
2 Fuel Committee on the costs of various fuels and  
3 other relevant factors.

4 "On March 8, 1955, the government directed:

5 That Canadian coal be used in all government coal  
6 burning installations where the laid down cost of  
7 such coal did not exceed the competitive cost of  
8 other coals by more than ten per cent.

9 "On February 18, 1958, the government directed:

10 That the present advantage of ten per cent of the  
11 laid down cost of coal granted to Canadian coal  
12 producers by cabinet directive of March 8th, 1955,  
13 be increased to twenty per cent of the laid down  
14 cost. "

15 The above federal government directives have provided  
16 considerable assistance to the industry and it is  
17 suggested that the governments of the coal producing  
18 provinces should give consideration to the implemen-  
19 tation of similar directives.

20 "N.B. The discussion on markets is continued on  
21 page 18 under the heading: Part II - Notes on Future  
22 Markets for Coal".

23 RECOMMENDATION NO. 4:

24 It is suggested that the Commission give con-  
25 sideration to recommending a broadening in the basis  
26 upon which transportation subventions are made available.  
27 It is believed that subventions could be devised which  
28 would be more effective in assisting the industry  
29 while at the same time reducing the cost per ton of the  
30 coal so moved.

31 In this connection, we have the following observations





1  
2 and suggestions to offer:

3 1. Freight Subventions:

4 Freight subventions were originally designed to  
5 enable Canadian coal to compete with imported American  
6 coal and have been operative for more than thirty years.

7 Since the large-scale discovery of petroleum  
8 and natural gas in western Canada commencing in 1947,  
9 subventions in their present form have become progress-  
10 ively less effective. The dieselization of the railways  
11 and the construction of a vast network of natural gas  
12 and petroleum pipelines have resulted in a relatively  
13 small amount of American coal being imported west of the  
14 lakehead in recent years. As a result, competition is  
15 largely that of natural gas, and to a lesser extent fuel  
16 oil, rather than American coal.

17 It is not suggested that freight subventions  
18 have outlived their usefulness, but simply that the type  
19 of competition to which they apply has diminished in  
20 some areas and in others has completely disappeared.  
21 Despite this development, subvention assistance is still  
22 effective in many areas and it is felt that present pro-  
23 visions should continue and be broadened to meet the  
24 changing conditions which have arisen over the past few  
25 years.

26 We believe that government assistance to the  
27 coal industry should take the cheapest form possible;  
28 that subvention assistance provisions should be such as  
29 to move the most coal for the least money. This might  
30 involve in certain instances the subsidizing of coal to  
enable it to compete with other Canadian produced fuels.





1  
2 Some markets for coal which might be made available by  
3 such means are listed on page 19 under the heading  
4 "Domestic and Industrial Heating".

5 The following data show the extent of subvention  
6 assistance in the movement of Alberta and British Col-  
7 umbia coals during the last eighteen months:

8 For the fiscal year of 1958-59 a total of  
9 2,729,522 tons of coal were moved under subvention in  
10 all of Canada at a cost of \$9,186,020. Coal produced  
11 in Alberta and British Columbia accounted for 178,998  
12 tons of this at a subvention cost of \$575,272, or about  
13 6.5 per cent of the tonnage moved and 6.3 per cent of  
14 the cost of the movement. The corresponding figures  
15 for the seven month period April 1st to December 31,  
16 1959, are 10 per cent and 9.1 per cent respectively.

17 Assistance in the export of coal to foreign  
18 countries has been of very considerable help to the pro-  
19 ducers of bituminous coking and semi-anthracite coals  
20 and has resulted in some substantial shipments to Japan.  
21 It has enabled several mines to continue to operate on an  
22 economic basis and to retain most of their working  
23 force intact.

24 Up to the end of 1959 the coal has moved more  
25 or less on a large scale test basis. However, it now  
26 appears that its suitability has been well established  
27 and that in the future it is a matter of meeting the  
28 competition of coals produced in several other countries.  
29 So long as the political climate remains as at present  
30 in the Far East, this business should develop to reason-  
ably substantial proportions, although this market is







likely to continue to be extremely competitive.

RECOMMENDATION NO. 5:

It is recommended, because of the basic importance of electric power to the economic development of western Canada, that the government of Canada and the Alberta and British Columbia provincial governments provide incentives by way of financial assistance which would advance the dates at which coal-fired thermal plants based on the use of underground coal would be built.

The Commission's attention is directed to the considered opinions of competent authorities that --

- (a) coal, because of price, will be the fuel in future thermal power developments in western Canada;
- (b) thermal power plants should be situated close to reserves of cheaply mined coal, and
- (c) natural gas, because it is a premium fuel and because it can be transported long distances at low cost, should be reserved for markets where convenience, cleanliness and transportation are prime considerations.

At the present time, there is in force in eastern Canada, the Atlantic Provinces Power Development Act. This act provides that the Minister of Northern Affairs and Natural Resources, may, on behalf of the government of Canada, make agreements with any of the four Atlantic provinces to furnish federal co-operation and assistance in the construction of power plants and transmission lines in these provinces. The act also authorizes





1  
2 the payment of subventions by Canada on eastern coal  
3 used in thermal electric power production.

4 As previously stated, coal will in future years  
5 supply the bulk of the fuel for thermally produced  
6 power. At the present time, strip mined coal is avail-  
7 able in certain areas for this purpose. There are, how-  
8 ever, certain areas particularly in southwestern Alberta  
9 and southeastern British Columbia, where strip coal will  
10 not be available at or near the plant site as additional  
11 power is needed. Such period might be anywhere from  
12 five to ten years away. In order to advance the date  
13 that such plant or plants would be built and to provide  
14 some immediate markets for underground coal, it is sug-  
15 gested that assistance similar to that provided by the  
16 Atlantic Provinces Power Development Act be made avail-  
17 able now for a limited period.

18 RECOMMENDATION NO. 6: RESEARCH

19 It is recommended that both dominion and  
20 provincial governments give every encouragement and support  
21 to enlarged and expanded programs of research aimed at  
22 developing new and improved uses for Canada's natural  
23 resources, especially the use of fossil fuels in these  
24 developments

25 The Division of Fuels, Department of Mines and  
26 Technical Surveys, Ottawa, and the Alberta Research  
27 Council have carried on coal research programs for many  
28 years. Both organizations have made extremely valuable  
29 contributions to the advancement of knowledge and technique  
30 in the mining, preparation and utilization of coal, and  
have given the coal industry the utmost co-operation at



all times.

There is great need for enlarged and expanded research programs in the following fields:

1. Fundamental research in such matters as coal constitution and so forth leading to radically new types of coal utilization.
2. Coal cleaning and coal carbonization for ferrous and non-ferrous metallurgical reduction processes.
3. The conversion of coal to chars and/or gases and the development and utilization of the products resulting therefrom.
4. Coal utilization -- particularly in large bulk applications.
5. Rock pressures, new mining machinery and mining techniques, and underground transportation, particularly in regard to pitching seams.
6. The transportation of coal by other than conventional means, e.g., by pipeline, either as a single product or in combination with some other product such as petroleum.

It is recognized that certain types of research involve very large sums of money and that there are limitations in this regard. In the matter of utilization, it is suggested that emphasis should be placed on the low cost bulk usage of coal rather than on specialized uses which involve low tonnage and high capital costs per unit of throughput.





1  
2 RECOMMENDATION NO. 7: DOMINION COAL BOARD

3 One of the recommendations of the Royal Com-  
4 mission on Coal, 1946, resulted in the establishment of  
5 the Dominion Coal Board in October, 1947.

6 The duties of the Board as set out in the  
7 Dominion Coal Board Act, 1947, are as follows:

8 "6. The Board shall study, review and recommend to the  
9 Minister from time to time such policies and measures  
10 as it considers necessary respecting the production,  
11 importation, distribution and use of coal in Canada.

12 "7. The Board may undertake or cause to be undertaken  
13 researches and investigations with respect to:

14 (a) the systems and methods of mining coal;

15 (b) the problems and techniques of marketing and  
16 distributing coal;

17 (c) the physical and chemical characteristics of  
18 coal produced in Canada with a view to develop-  
19 ing new uses therefor;

20 (d) the position of coal in relation to other forms  
21 of fuel or energy available for use in Canada;

22 (e) the costs of production and distribution of  
23 coal and the accounting methods adopted or used  
24 by persons dealing in coal;

25 (f) the co-ordination of the activities of govern-  
26 ment departments relating to coal; and

27 (g) such other matters as the minister may request  
28 or as the Board may deem necessary for carry-  
29 ing out any of the provisions or purposes of  
30 this act."





1  
2 It is the opinion of this association that  
3 the Dominion Coal Board over the twelve years of its  
4 existence has performed an invaluable service to the  
5 industry and to the country as a whole. It has provided  
6 a direct liaison between the industry and the federal  
7 government and has carried out its duties as set out in  
8 the act in an able and farseeing manner. It is recom-  
9 mended that the board continue to function as a separate  
10 department of government and that its activities be broad-  
11 ened in the fields outlined in sections 6 and 7 of the  
12 act as above quoted.

13 RECOMMENDATION NO. 8: GENERAL

14 It is recommended that the Commission give  
15 careful consideration both to short and long term policies  
16 respecting the coal industry of western Canada, and  
17 especially to the steps which should be taken now to  
18 ensure the preservation of a sufficient nucleus of the  
19 industry, together with the necessary technical operating  
20 experience and facilities, so that it could be expanded  
21 on short notice in case of a national emergency.

22 Respectfully submitted on behalf of  
23 THE COAL OPERATORS' ASSOCIATION OF WESTERN  
24 CANADA

25 Per: W. C. Whittaker

26 W. C. Whittaker  
27 Managing Director.

28 PART II

29 NOTES ON FUTURE MARKETS FOR COAL

30 Despite the current depression in the coal  
industry in Alberta and British Columbia, there are  
several grounds for optimism as regards the longer term





1  
2 view. The most significant are:

- 3 (a) The sheer size of the western coal reserves,  
4 i.e., their huge preponderance over probable  
5 petroleum and natural gas reserves; and  
6 (b) The present and future relative costs of coal,  
7 petroleum and natural gas.

8 With respect to coal, it is estimated that these  
9 two provinces contain some 74 per cent of Canada's total  
10 coal reserves. Recoverable coal has been placed at  
11 33,300,000,000 tons consisting of semi-anthracite, bitu-  
12 minous, sub-bituminous and lignite -- the equivalent  
of 800 trillion cubic feet of natural gas.

13 There are already several areas in which coal  
14 is competitive with natural gas. One lies in the field  
15 of power generation where strip coal is being produced  
16 at prices equivalent to natural gas at 12 cents per mcf  
17 or less. It seems probable too that the price of natural  
18 gas will increase substantially when the export of this  
19 fuel is fully under way. It is also almost equally  
20 certain that coal may become cheaper than at present as  
21 a result of further improvements in mining techniques,  
22 more efficient utilization and the development of  
entirely new uses for coal or coal by-products.

23 (a) Domestic and Industrial Heating

24 We have dealt briefly with this subject under  
25 Recommendation No. 3, page 9. We would, however, like to  
add the following observations at this point.

26 Many coal burning installations in government  
27 and other buildings are of the antique variety or have  
28 been poorly designed so that an undue amount of manual  
29  
30





1  
2 labour is involved. Within recent years, considerable pro-  
3 gress has been made in packaged coal combustion, equip-  
4 ment that minimizes the need for attention and manual  
5 operations, and it is this type of equipment in medium  
6 sized industrial and institutional establishments, coupled  
7 with favourable fuel costs, which may well result in  
8 considerable reconversions to coal.

9 On the other hand, large industrial loads in  
10 the four western provinces are few in number and most  
11 of these plants are now being supplied by natural gas  
12 and in several instances by imported fuel oil.

13 For example, there are five cement plants  
14 burning natural gas and one operating on residual fuel  
15 oil. These use the equivalent of 600,000 to 700,000 tons  
16 of bituminous coal annually.

17 There are also several large chemical plants  
18 which are using or will use large quantities of imported  
19 fuel oil and natural gas for steam raising. There are  
20 as well a number of electric generating stations using  
21 large quantities of low cost natural gas.

22 At the present time, coal is in most cases  
23 unable to compete successfully in the above-mentioned  
24 instances, largely because of the higher cost of the  
25 transportation. As the price of natural gas increases,  
26 the competitive gap will be narrowed and in future years  
27 there should be a substantial rebuilding of a coal market  
28 in the industrial space heating and steam raising field.  
29 The present use pattern in the United States, where  
30 heavy industry is increasingly relying on coal, offers  
impressive substantiation of this view. (See page 50).





1  
2           It is our belief that through a change in  
3 subvention provisions, it should be possible to make  
4 available to the coal industry some portion at least of  
5 the industrial market now being monopolized by these other  
6 fuels.

7     (b) Electric Power Generation

8           The principal market for western Canadian coal  
9 in the future is likely to develop in the field of elec-  
10 tric power generation. Most of the low cost hydro sites  
11 close to load centres in Alberta and southeastern  
12 British Columbia have already been developed and future  
13 expansion of power generating installations is consequently  
14 expected to be based on coal and to be located at or  
15 close to the producing mines. In this connection, the  
16 Commission's attention is drawn to the 1958 annual  
17 report of the Alberta Power Commission which reads in  
18 part as follows:

19           "The continent of North America is approaching another  
20 explosion of population similar to that which com-  
21 menced after the second world war. Canada will  
22 share in this and Alberta, because of its great  
23 energy resources, will probably have more than its  
24 proportionate share. This indicates that it might  
25 be well to start now to take a careful look at energy  
26 resources and particularly at our coal reserves. We  
27 know that we have about one-half of all the mineable  
28 coal in Canada, but beyond that our knowledge is  
29 somewhat limited as to the exact delineation of our  
30 various coal seams and the location of mineable de-  
posits of the order of 100 to 200 million tons which







1  
2 "will be required to supply the power plants of the  
3 relatively near future. We are only now coming to  
4 the realization of the fact that generally speaking,  
5 in Alberta power can be produced from coal more  
6 cheaply than from natural gas and similarly that  
7 thermal power is cheaper than hydro. Coal will pro-  
8 duce our basic load of the future while gas and  
9 hydro will find their places -- most valuable places  
10 -- as peak load supplements from coal. For Alberta,  
11 at least, because of its cheap fuels, nuclear power  
is still far in the future.

12 "The impact on Alberta of the increased continental  
13 population will call for the development of far  
14 greater quantities of power than those to which we  
15 are accustomed even though our installed capacity  
16 has increased by 335 per cent in the last ten years.  
17 These demands for power will soon use the few power  
18 sites mentioned above and more and more we will  
19 turn to those in northern Alberta and to our coal  
20 reserves. For this reason we should be bending our  
21 efforts to increasing our knowledge of our coal  
22 deposits by means of further research into their  
delineation and utilization."

23 The Alberta government's submission to the  
24 Gordon Royal Commission on Canada's Economic Prospects  
25 takes much the same view, and on page 92 under the head-  
26 ing "The Outlook for Coal", makes the following statement:  
27 "Probable coal developments may be assumed to be  
28 determined in the main by Alberta's requirements of  
29 electrical power and by certain other firm industrial  
30





1  
2 "demands. As suggested in section 6 of this report,  
3 power generation within the province is likely to  
4 become overwhelmingly dominated by water power and  
5 coal, with some 42 per cent generated in thermal  
6 stations burning coal. By 1985 the annual consump-  
7 tion of coal for this purpose may therefore reach  
8 between three and four million tons."

9 While the development of coal burning power  
10 generating installations will initially aid the mining  
11 of the prairie sub-bituminous coal which can be recovered  
12 in stripping operations, there are several areas in which  
13 bituminous coal may contribute to the power generation  
14 field.

15 For example, the bituminous coals of Lethbridge,  
16 the Canmore and Crow's Nest Pass areas of southwestern  
17 Alberta are particularly well located for use in thermal  
18 power plants because the available hydro sites in this  
19 area, except for peaking purposes, have already been  
20 developed. With thermal plants located at or near the  
21 mines, the transportation cost would be eliminated and  
22 this would result in fuel costs in the order of 20 to  
23 25 cents per million BTU's or less.

24 Plants to carry base load will probably be  
25 required in a fairly short period of time, perhaps five  
26 to ten years, in this section of Alberta and British  
27 Columbia, and it is believed, with the provision of some  
28 financial incentive, the establishment of such projects  
29 could be moved forward in time to provide in part at  
30 least the markets urgently needed for the continued oper-  
ation of the mines in this area.







1  
2 In general it would appear that a better pur-  
3 pose would be served by encouraging the location of new  
4 power generating installations at the mines rather  
5 than by the continued payment of subventions to enable  
6 coal to move over long distances. However, for the  
7 immediate years ahead, it will probably be necessary to  
8 continue to move coal to such markets as are presently  
9 available.

10 The Commissioner's attention is drawn to the  
11 fact that a large thermal power plant is now being built  
12 at the lakehead. The capacity of this plant may ultim-  
13 ately increase to one million kilowatts at which rate it  
14 would consume upwards of three million tons of bituminous  
15 coal per annum. The plant is designed to burn coal,  
16 fuel oil and natural gas. At the present time, arrange-  
17 ments have been made to handle American waterborne coal  
18 only and western Canadian coal could only compete with  
19 substantial subvention assistance being available and if  
20 some concessions were made on the freight haul by the  
21 railway company. We believe this is a situation where  
22 government assistance is justified so that Canadian coal  
23 may supply some portion at least of this plant's require-  
24 ments.

### 25 (c) Metallurgical Coal and Coke

26 A third major market for coal will probably be  
27 created in the future by the growth of metallurgical  
28 operations in Alberta and British Columbia. Steel produc-  
29 tion in North America is an expanding industry and the  
30 demand for blast furnace coke is certain to grow. The  
reserves of coking coal which occur in the mountain  
areas of Alberta and southeastern British Columbia are  
considered the largest on the continent west of the





1  
2 Mississippi river. These coals are of good coking quality  
3 and have the added advantage of a very low sulphur con-  
4 tent. There is at present a substantial tonnage of  
5 coke being manufactured in the Crow's Nest Pass area and  
6 the production of coke for blast furnace operation, non-  
7 ferrous ore reduction processes and for foundry operations  
8 is likely to expand considerably. It is also likely that  
9 a large steel industry will develop in the San Francisco  
10 bay area and the Crow's Nest Pass coal field will be the  
11 logical source of coking coals for that market.

12 Within recent months a company in southeastern  
13 British Columbia has commenced the erection of a plant  
14 to make pig iron and steel. The process will initially  
15 use a modest amount of coke and coke breeze and this re-  
16 quirement is likely to increase to fairly substantial  
17 proportions. One or more other companies in the prairie  
18 provinces have also been studying the possibility of  
19 making pig iron and steel. In addition, several large  
20 pipe manufacturing companies are about to come into oper-  
21 ation and will require skelp for the manufacture of  
22 their product. As the steel fabricating industry develops  
23 it seems likely that the necessary materials will be pro-  
24 duced in the west rather than be imported from eastern  
25 Canada or the west coast.

#### 26 (d) Chemicals from Coal

27 Much has been written in the popular press about  
28 the possibilities of chemicals from coal, but most of  
29 these articles have failed to take into account the  
30 economics involved.

In most cases the capital cost per ton of coal







1  
2 processed is relatively high and in addition, situated  
3 as the western mines are, far from large centres of pop-  
4 ulation, markets at competitive prices for the chemicals  
5 produced would be somewhat limited.

6 The complete conversion of coal to synthetic  
7 fuel liquids and/or gases has been the subject of ex-  
8 haustive studies over many years, both in Europe and the  
9 U. S. A., and it is the consensus of opinion that such  
10 processes are not economically feasible at the present  
11 time.

12 One type of process, however, which seems to  
13 have a better chance of success at the present time is  
14 the production of low temperature char for use in thermal  
15 power plants with subsequent processing of the tars which  
16 result from this process. In this connection, and in  
17 regard to the topic in general, the Commission may be  
18 interested in the views expressed by the Research Council  
19 of Alberta, in a submission to the province of Alberta to  
20 the Gordon Commission (Alberta's Economic Prospects,  
21 page 94), in which it states --

22 "And finally, there appears to lie ahead a distinct  
23 possibility of eventually basing a chemical industry  
24 on coal that will supplement rather than compete  
25 with the petrochemical industry. The possibility of  
26 converting coal into synthetic liquid and gaseous  
27 fuels by hydrogenation and gasification -- pro-  
28 cesses that have been exhaustively studied in the  
29 U. S. A. and in Germany -- is considered remote in  
30 Alberta unless new developments in this field are  
reported. But hydrogenation to produce chemicals







1  
2 "rather than gasoline, and/or carbonization with sub-  
3 sequent manufacture of organic chemicals from carbon-  
4 ization by-products, appear quite capable of exploit-  
5 ation in Alberta. What is particularly attractive  
6 about these possibilities is that Alberta's diversity  
7 of coal types would permit appropriate selection of  
8 different coals for specific manufacturing processes.  
9 Moreover, in an integrated industry, hydrogenation  
10 residues and the carbonized chars obtained from  
11 such operations would offer a cheap and desirable  
12 fuel for power generation. Also potentially possible  
13 within Alberta is the use of coking coals for the  
14 production of so-called 'structural carbons' (such  
15 as acid-tank and blast furnace linings, heat ex-  
16 changers, corrosion-resistant tubes, etc.) by est-  
17 ablished processes already employed on a fair scale  
18 in the U. S. A. and in Britain. The manufacture of  
19 chemicals and structural carbons from coal would  
20 of course not require very large tonnages of raw  
21 coal, but could nevertheless be of tremendous value  
22 to Alberta's coal industry.

23 "The examples just given do not by any means exhaust  
24 possibilities. Nor ought they be viewed as all being  
25 equally likely to play a part in Alberta's economy  
26 in the years ahead. But they illustrate what might  
27 be done; and they provide sound reasons for op-  
28 timism about the future of coal in the province.  
29 Were developments such as these to be undertaken,  
30 an annual coal production of the order of 9-10  
million tons, and a very substantial contribution by





1  
2 "the coal industry to the value of Alberta's manu-  
3 factured products, may be looked forward to with  
4 confidence."

5 Support for these views can be found in num-  
6 erous American and European publications. One of these  
7 is quoted in full on pages 51 to 58. This is a paper  
8 presented by Joseph Pursglove, Vice-President, Research  
9 and Development, the Pittsburgh Consolidation Coal Co.,  
10 Pittsburgh, Pa., before the American Coke and Coal  
11 Chemicals Institute, White Sulphur Springs, in October,  
12 1956. It reflects American thinking in the field of  
13 coal chemicals production and indicates the many poten-  
tialities of coal as a chemical source material.

14 (e) Coal for Heavy Industry

15 As already noted, western Canada is industrial-  
16 ized at an accelerating pace, but to date little heavy  
17 industry has located in close proximity to coal mines.  
18 Aside from those referred to earlier, the only plants  
19 which require significant volumes of coal or coke are  
20 installations concerned with the smelting and refining  
21 of non-ferrous metals and the manufacture of cement and  
22 pulp and paper. Several such plants are currently employ-  
23 ing natural gas and some small amounts of fuel oil.  
24 These are likely to return to coal as and when price  
25 shifts make gaseous and liquid fuels economically un-  
26 attractive, but in the meantime, the sale of gas at  
27 these plants at extremely low prices has robbed coal of  
28 markets it can ill afford to lose. It is suggested that  
29 this is the type of market which could most readily  
30 assist the coal mines and in which the provision of







subvention assistance could be effected at the lowest possible cost.

### PART III

#### MECHANIZATION AND PRODUCTIVITY

Item (b) of the terms of reference instructs the Commission to enquire into and make recommendations concerning:

"The steps that can reasonably be taken to reduce the cost of production of coal in the various coal producing areas of Canada and the costs of its distribution to Canadian markets."

On page 2 hereof, brief reference has been made to the matters of productivity and mechanization, but in view of the above quoted term of reference, we feel we should deal quite specifically with the matters of productivity, mining conditions, mechanization and production costs, and what can reasonably be done in the matter of cost reduction. Our observations in this regard follow:

#### Types of Mining

Because of the variety of coal types occurring in Alberta and British Columbia varying from semi-anthracite to lignite, and the differences of mining conditions, it is helpful to consider the coal industries of the two provinces as falling into two broad categories:

(a) The pitching seam high rank bituminous coals which occur predominantly in the mountain regions and are in the main produced in underground mines; and

(b) The flat lying bituminous and sub-bituminous





1  
2 coals which occur in the plains areas and are  
3 mined both by underground and strip methods.

4 Mining Conditions and Mechanization

5 It may be noted that while the Alberta and  
6 British Columbia figures are somewhat lower than those of  
7 the United States, underground mining conditions in west-  
8 ern Canada are much less favourable than they are in the  
9 United States where 85 per cent of the national produc-  
10 tion is obtained from flat seams with good roofs and pave-  
11 ments and relatively shallow cover. That is down in  
12 Pennsylvania, Ohio, West Virginia, Tennessee, and so on.

13 The bituminous coals of Alberta and British  
14 Columbia which for the most part occur in mountain areas,  
15 have been severely disturbed and distorted by geological  
16 thrusts and uplifts. Seam inclinations vary from  $10^{\circ}$  to  
17  $90^{\circ}$  and mining conditions in such seams require heavy  
18 timbering. The steep pitch of the seams, the friable nature  
19 of the coals and the poor roof and pavement conditions  
20 place formidable obstacles in the way of complete mechan-  
21 ization. In spite of these difficulties, however, all of  
22 the larger Alberta and British Columbia mines are extensively  
23 mechanized.

24 The prairie coals of Alberta which are geolog-  
25 ically young usually occur in seams with weak roofs  
26 and soft pavements and they also require heavy timbering  
27 during mining operations. Nevertheless, almost all these  
28 coals are mechanically mined and loaded.

29 High production rates are obtainable in strip  
30 mining operations which are contributing increasingly to  
the total annual production of coal in Alberta and British





1  
 2 Columbia, but reserves of coal amenable to this form of  
 3 extraction are relatively small in comparison with the  
 4 reserves under thick cover.

5 A further factor which reduces the Alberta and  
 6 British Columbia output per manshift is part-time oper-  
 7 ation. In 1959 the underground mines of member companies  
 8 of the Coal Operators' Association of Western Canada  
 9 operated an average of only 171.3 days per annum, or  
 10 only 68 per cent of full-time production. This part-time  
 11 operation, because maintenance and other essential services  
 12 must be carried on continuously, has a serious effect on  
 costs and output per manshift.

### 13 Productivity

14 Labour is usually the largest single item of  
 15 cost in the production of coal mined by underground methods,  
 16 and varies between 50 per cent and 60 per cent of total  
 17 cost. Output per manshift is therefore a well accepted  
 18 yardstick as to relative costs of production and the  
 19 degree of mechanization. At the same time, the mining  
 20 conditions encountered will be directly reflected in this  
 figure.

21 For these reasons it is of interest to compare  
 22 the productivity of the Alberta and British Columbia indus-  
 23 try with that of Canada as a whole and with other produc-  
 24 ing countries. The latest available figures on which such  
 25 a comparison may be based are as follows:  
 26  
 27  
 28  
 29  
 30







1	U.S.A. - Bituminous Underground (1958)	9.38 tons per marday	
2	Strip	21.54	"
3	Overall	11.33	"
4	Anthracite - 1956	2.8	"
5	Canada - 1958	4.52	"
6	Alberta and B.C. - Overall	5.726	"
7	Alberta and B.C. - Underground	3.855	"
8	Member Companies of The Coal Operators' Association - Overall	4.996	"
9	U.S.S.R. 1957	1.98	"
10	Poland	1.79	"
11	France	1.85	"
12	United Kingdom	1.78	"
13	West Germany	1.74	"
14	Netherlands	1.65	"
15	Belgium	1.27	"

### Production Costs

Latest average production costs are given in the "Canadian Coal Mines Operating Costs and Revenues per Net Ton of Marketable Coal Produced - 1958". See page 37.

For Alberta and British Columbia, underground coal production costs amount to \$6.68 per ton, while Alberta strip mined coal is produced for an average of \$3.26 per ton. These costs correspond to pithead costs of 25.7 cents and 19.6 cents per million BTU's respectively

It is interesting to note that the average wellhead price of petroleum produced in Alberta during





1  
2 first half of 1959 was \$2.43 per barrel, i.e., approxi-  
3 mately 42 cents per million BTU's. An even more apt com-  
4 parison with fuel oil suggests that fuel oil No. 2 and  
5 No. 5 would have to be produced between \$1.54 and \$1.17  
6 per barrel, corresponding to 4.4 cents and 3.4 cents  
7 per gallon, in order to compete with coal on a straight  
8 cost basis per million BTU's, that is at the pit head.

9 Present field prices of natural gas sold to the  
10 larger pipeline companies average about 14½ cents per mcf,  
11 (1 mcf = 1,000 cu. ft. = 1,000,000 BTU's). These  
12 escalate in twenty to twenty-five years to approximately  
13 20 cents per mcf. In addition to the above, there will be  
14 certain charges by Alberta Gas Trunk Line for the trans-  
15 portation of the gas from the field to the point of use.  
16 It also seems likely that with additional gas export, the  
17 field price is likely to increase to still higher levels  
18 which will make coal more competitive than it is at the  
19 present time.

20 It is interesting to note that the coal indus-  
21 try is already producing substantial tonnages of strip  
22 coal destined mainly for power generation at less than  
23 \$2.00 per ton, i.e., at a cost equivalent to gas at  
24 12 cents per mcf.

25 The foregoing is not to say that the ultimate  
26 has been reached in mining techniques and mechanization  
27 in western Canada. There is undoubtedly room for improve-  
28 ment and continued progress is being made in this  
29 direction. However, we would point out that geological  
30 conditions impose limitations which will preclude the  
possibility of obtaining outputs per manshift which will







1  
2 rival those of the best American mines.

3 In the United States the great increase in  
4 output per manshift has resulted mainly from the widespread  
5 use of continuous mining machines, roof bolting, and large  
6 mine cars, some with capacities of twenty tons each;  
7 conveyor belts for main line haulage; shuttle cars and  
8 extensible belts for servicing continuous miners and so  
9 forth.

10 Practically all of this equipment has been de-  
11 signed for use in flat seams where a minimum of roof  
12 support is required. Some of this equipment will operate  
13 successfully on inclinations up to 16 degrees pitch, but  
14 because of its weight and size is impracticable to move  
15 rapidly and efficiently except in relatively flat workings.  
16 Where flat seams, good roof and pavement, and uniform  
17 conditions prevail, large outputs per machine shift and  
18 per man shift are possible. However, the moment any of  
19 these conditions deteriorate, the output decreases at a  
20 rapid rate and the use of much of this high-priced  
21 equipment becomes uneconomic.

22 Our western operators are fully familiar with  
23 the various types of equipment available and what they can  
24 do. Furthermore, they have always been prepared to invest  
25 in such equipment any time they could be convinced that  
26 its purchase would pay off. However, with the immediate  
27 outlook which faces the industry, serious consideration  
28 must be given as to whether or not sufficient markets  
29 will continue to be available to provide for the repay-  
30 ment of the cost of such equipment. The cost of a  
continuous mining machine with the necessary ancillary





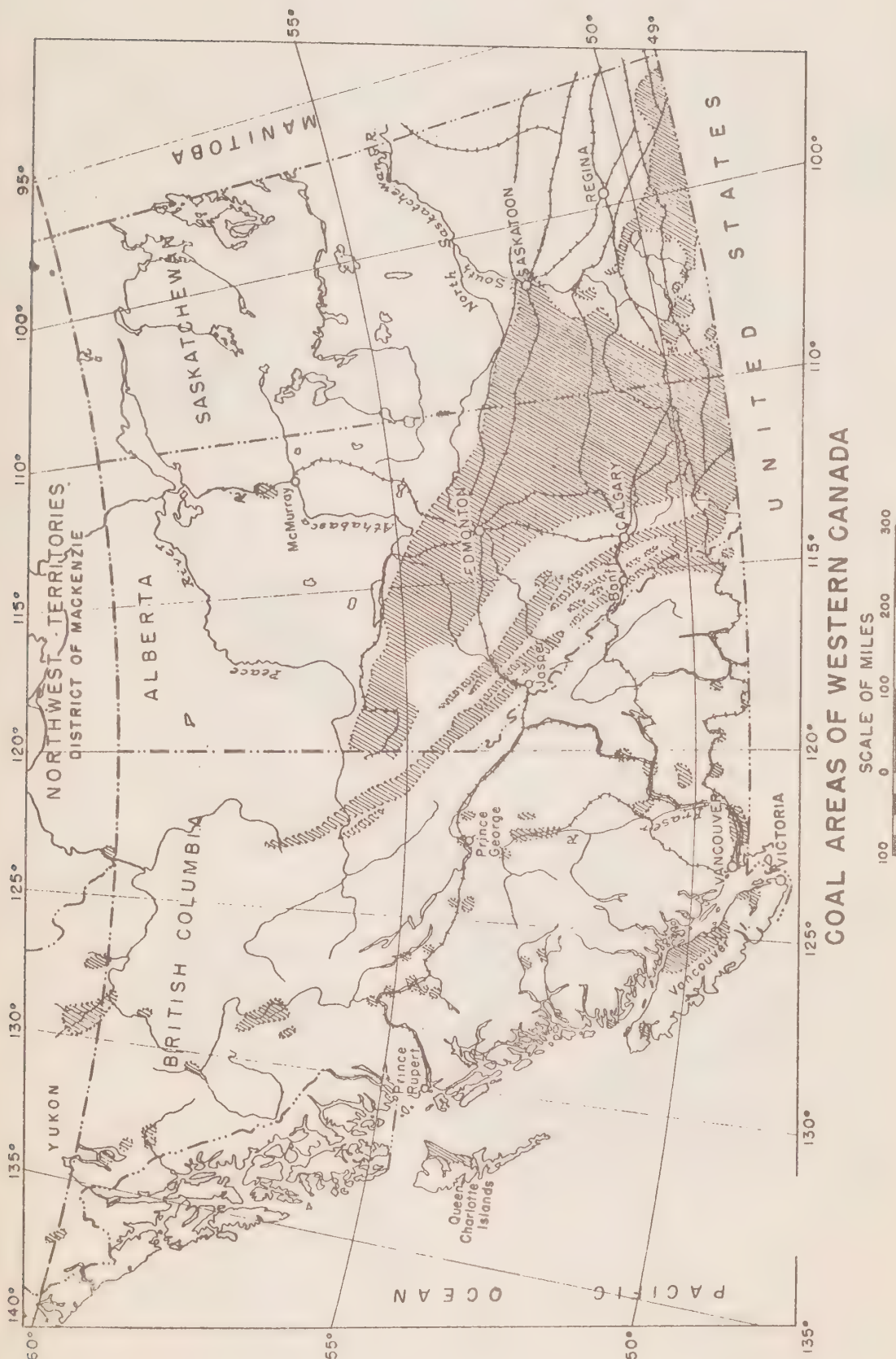
1  
2 equipment will run anywhere from \$100,000 per unit and up.  
3 It can be seen, therefore that reasonably steady operation  
4 is necessary to make such an investment an economic prop-  
5 osition.

6 The foregoing gives an overall picture on  
7 productivity, mechanization and costs. Productivity can  
8 and will undoubtedly be increased with consequent reduction  
9 in costs. Increased efficiency, higher production per  
10 capita and lower costs would benefit the industry and  
11 the operators have these objectives constantly in mind.  
12 It is recognized that substantial progress in these matters  
13 is a "must" for the western coal industry.  
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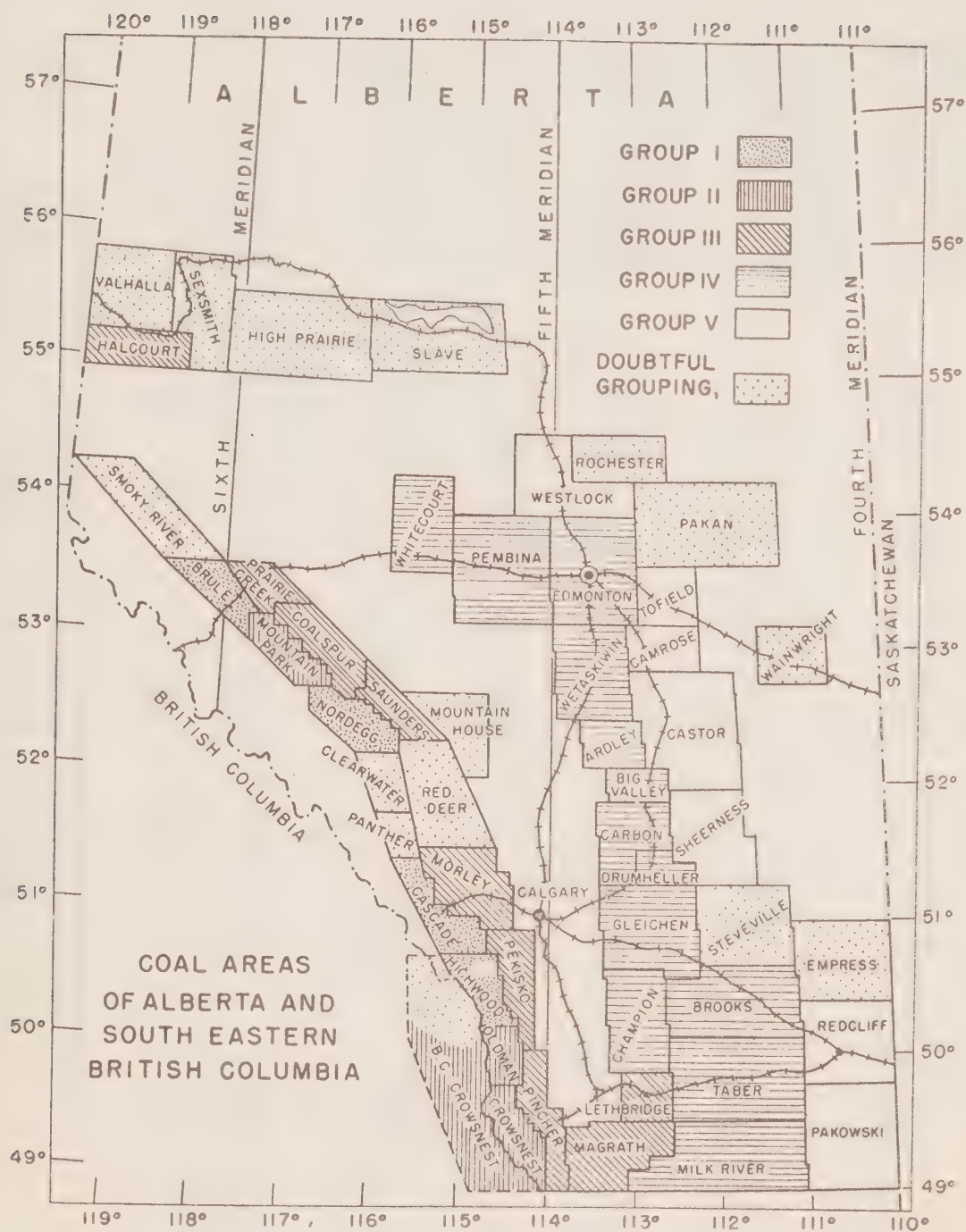








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WESTERN CANADIAN COAL TYPES  
GROUP CLASSIFICATION

Group No.	Designation	Principal Areas	Range of Composition	Heat Value	Storage Properties	Main Uses	Remarks
1	Low volatile bituminous; also some semi-anthracite (all from mountain areas).	Alberta: Cascade (Camrose), Nordegg.	Moisture: 1-2% Ash: 8-10% Volatile Matter: 10-16%	14,000-14,200 BTU/lb.	Good. Coals are weather-resistant and can be stored in the open.	Domestic heating, railway fuel, steam raising. Briquettes are valuable as a domestic and locomotive fuel.	Group 1 coals are non-caking and will burn freely with a short flame.
2	Medium and high volatile A and B bituminous (all from mountain areas).	Alberta: Crowsnest, Mountain Park, B.C.: Crowsnest, Vancouver Island.	Moisture: 1-4% Ash: 8-15% Volatile Matter: 20-36%	12,000-13,500 BTU/lb.	Good. Coals are weather-resistant and can be stored in the open.	Domestic heating, locomotive fuel, steam raising. Also for manufacture of coke.	Group 2 coals are caking coals; combustion equipment must be capable of handling such coals.
3	High volatile C bituminous (principally from the foothills areas).	Alberta: Coalspur, Lethbridge, Prairie Creek, Saunders.	Moisture: 7-12% Ash: 7-13% Volatile Matter: 32-35%	10,400-11,900 BTU/lb.	Good. Coals are weather-resistant and can be stored in the open.	Domestic heating and steam raising.	Group 3 coals are non-caking and will burn freely with a medium-long to long flame.
4	Subbituminous A, B and C (all from Prairie areas).	Alberta: Brooks, Big Valley, Carbon, Drumheller, Edmonton, Pembina, Taber, B.C.: Princeton.	Moisture: 16-25% Ash: 6-12% Volatile Matter: 26-32%	8,500-10,000 BTU/lb.	Good if coals are stored under cover.	Domestic heating and steam raising.	Group 4 coals are non-caking and will burn freely with a long flame. If used for steam raising, liberal furnace and grate dimensions are required.
5	Subbituminous B and C (all from Prairie areas).	Alberta: Camrose, Castor, Sheerness, Tofield.	Moisture: 23-30% Ash: 5-9% Volatile Matter: 27-30%	7,700-9,000 BTU/lb.	Fair if stored under cover; do not store well in the open.	Domestic heating and steam raising.	Group 5 coals are non-caking and very reactive coals that burn freely with a long flame. If used for steam raising, liberal furnace and grate dimensions are required.
6	Lignites (all from Prairie areas).	Saskatchewan: Estevan, Bienfait.	Moisture: 29-31% Ash: 5-9% Volatile Matter: 25-28%	7,200-8,000 BTU/lb.	Fair if stored under cover; do not store well in the open.	Domestic heating and steam raising.	Group 6 coals are non-caking and highly reactive. Burn with a very long flame and may require specially designed combustion equipment if used for steam raising.







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CANADIAN COAL MINES OPERATING COSTS AND REVENUES  
PER NET TON OF MARKETABLE COAL PRODUCED - 1958

	NOVA SCOTIA		NEW BRUNSWICK		SASKATCHEWAN		ALTA-DOMESTIC UNDERGROUND		ALTA-DOMESTIC STRIPPING		ALBERTA MOUNTAIN		B. C. AND YUKON		TOTAL CANADA	
	Cost %	\$	Cost %	\$	Cost %	\$	Cost %	\$	Cost %	\$	Cost %	\$	Cost %	\$	Cost %	\$
<b>OPERATING COSTS</b>																
Labour .....	46.1	4.94	42.8	3.67	25.3	.44	3.42	33.4	1.09	42.1	2.81	49.1	3.75	44.5	3.10	
Welfare Fund .....	1.5	.16	.2	.02	1.5	.03	.24	.2	.01	4.4	.29	3.1	.24	1.8	.12	
Vacation Pay .....	3.5	.37	.8	.07	2.1	.04	.17	.5	.02	1.9	.12	2.3	.17	2.7	.19	
Workmen's Compensation	2.8	.30	1.1	.09	2.1	.04	.22	.4	.01	2.3	.16	2.3	.18	2.4	.17	
Maintenance, Repairs																
& Supplies .....	17.5	1.88	28.7	2.47	18.5	.32	9.4	8.8	.28	7.2	.48	10.1	.77	16.4	1.14	
TOTAL MINE COSTS .....	71.4	7.65	73.6	6.32	49.5	.87	68.8	43.3	1.41	57.9	3.86	66.9	5.11	67.8	4.72	
Taxes & Insurance .....	1.4	.15	1.8	.16	5.1	.09	3.1	3.6	.12	3.0	.20	4.1	.32	2.3	.16	
Power .....	4.7	.50	5.0	.42	5.5	.10	4.5	.31	.08	5.6	.38	6.0	.46	4.8	.33	
Royalties .....	1.0	.11	1.8	.16	1.7	.03	1.2	3.7	.12	1.2	.08	.0	.00	1.2	.09	
Administration &																
Supervision .....	3.6	.39	3.4	.29	4.2	.07	6.9	.47	8.3	.27	8.0	.54	5.7	.43	4.6	.32
Miscellaneous Expense .....	.5	.05	.4	.04	.7	.01	.4	.03	1.2	.04	.3	.02	.6	.04	.5	.03
TOTAL COST TO TIPPLE .....	82.6	8.85	86.0	7.39	66.7	1.17	85.4	5.83	62.6	2.04	76.0	5.08	83.3	6.36	81.2	5.65
Tipple & Washing Plant	.9	.10	1.5	.13	7.0	.12	2.8	.19	8.2	.27	10.9	.73	5.6	.43	2.8	.20
TOTAL COST F.O.B. CARS	83.5	8.95	87.5	7.52	73.7	1.29	88.2	6.02	70.8	2.31	86.9	5.81	88.9	6.79	84.0	5.85
Depreciation .....	3.5	.37	8.6	.74	8.4	.15	6.2	.42	20.5	.67	4.2	.28	5.7	.43	5.6	.39
Depletion .....	.1	.02	1.0	.09	2.8	.05	.7	.05	2.4	.08	1.4	.09	.4	.03	.6	.04
Bond & General Interest	1.2	.13	.9	.08	.3	.00	.1	.00	1.1	.03	4.0	.27	.1	.01	1.1	.07
Distribution .....	11.7	1.25	2.0	.17	14.8	.26	4.8	.33	5.2	.17	3.5	.23	4.9	.38	8.7	.61
TOTAL COSTS .....	100%	10.72	100%	8.60	100%	1.75	100%	6.82	100%	3.26	100%	6.68	100%	7.64	100%	6.96
<b>COAL PRODUCED (NET TONS)</b>																
TONS PRODUCED PER MAN-DAY	2,512,447*	892,201	2,189,878	2,189,878	2,189,878	2,189,878	1,068,830	228,244	583,802	789,762	9,972,166	4,52				
REVENUES	2.81	3.98	26.04	4.04	14.35	5.44										
Coal Sales .....	8.57	8.77	2.09	6.90	3.04	6.11	7.45									
Miscellaneous Income &																
Stock Adjustments	2.21	.03	.02	.29	.25	.34	.96									
TOTAL INCOME .....	10.78	8.80	2.11	7.19	3.29	6.45	8.41									
<b>PROFIT (P) OR LOSS (L)</b>																
(Before Income Tax) ....	P .06	P .20	P .36	P .37	P .03	L .23	P .77									

\* Lower Nova Scotia output this year due to certain major operators supplying data for seven months only necessitated by changes in financial year ends.





Production of Coal and Dollar Value at Mines  
Provinces of Alberta and British Columbia

	<u>Alberta</u>	<u>British Columbia</u>	<u>Total Production</u>	<u>Dollar Value at Mines</u>
1940	6,203,839	1,867,846	8,071,685	\$22,535,209
1941	6,969,962	2,020,844	8,990,806	25,875,143
1942	7,754,053	2,168,541	9,922,594	30,191,232
1943	7,676,726	2,039,402	9,716,128	31,679,406
1944	7,428,708	2,134,231	9,562,939	35,824,443
1945	7,800,151	1,699,768	9,499,919	34,889,236
1946	8,826,311	1,638,424	10,464,735	40,602,811
1947	8,070,430	1,763,899	9,834,329	45,069,380
1948	8,123,255	1,780,334	9,903,589	52,028,702
1949	8,616,855	1,906,963	10,523,818	55,442,713
1950	8,116,220	1,730,445	9,846,665	51,427,299
1951	7,659,329	1,739,412	9,398,741	50,679,760
1952	7,194,757	1,644,250	8,839,007	49,818,082
1953	5,917,474	1,443,006	7,360,480	40,973,066
1954	4,859,049	1,299,510	6,158,559	34,309,871
1955	4,455,279	1,453,881	5,909,160	32,235,299
1956	4,328,787	1,472,519	5,801,306	31,996,868
1957	3,156,546	1,113,699	4,270,245	24,663,571
1958	2,519,901	849,091	3,368,992	18,558,147
1959	2,549,517	757,515	3,307,032	18,364,811

Source: The Coal Mining Industry, Dominion Bureau of Statistics

1959 Figures - Alberta and British Columbia Department  
of Mines



Production of Coal by Groups - Province of Alberta  
Years 1947 to 1959

	<u>Group I</u> <u>L. V. B.</u>	<u>Group II</u> <u>M. V. B.</u>	<u>Group III</u> <u>H. V. B.</u>	<u>Group IV</u> <u>Sub-Bit A</u>	<u>Group V</u> <u>Sub-Bit B</u>
1947	624,489	2,922,829	1,290,058	2,835,250	401,970
1948	657,817	3,022,929	1,240,050	2,620,821	569,396
1949	645,981	3,594,329	1,255,017	2,645,591	476,065
1950	500,611	3,026,326	1,266,083	2,714,682	610,504
1951	347,781	3,161,552	1,149,956	2,434,554	567,433
1952	581,927	2,733,953	1,062,742	2,151,954	663,896
1953	512,408	2,180,262	822,829	1,729,270	670,654
1954	353,540	1,351,322	697,323	1,785,747	671,204
1955	204,909	1,334,454	575,529	1,581,758	759,928
1956	220,564	1,326,692	517,467	1,404,345	860,571
1957	203,993	641,930	419,921	1,172,561	716,949
1958	128,922	416,272	289,062	939,610	746,073
1959	179,985	410,005	224,829	956,907	777,791

Source: Annual Reports of The Mines Division, Alberta

\*\*\*\*\*

Coal Production - Strip and Underground  
Provinces of Alberta and British Columbia

	<u>Alberta</u>		<u>British Columbia</u>	
	<u>Strip</u>	<u>Underground</u>	<u>Strip</u>	<u>Underground</u>
1947	1,880,579	6,194,017	232,000	1,485,476
1948	2,716,081	5,394,932	527,488	1,281,530
1949	2,941,956	5,675,027	328,165	1,589,131
1950	3,098,354	5,019,852	274,854	1,481,813
1951	2,829,114	4,832,162	389,410	1,434,974
1952	2,688,509	4,505,963	261,887	1,388,732
1953	2,535,193	3,382,230	404,173	1,171,932
1954	2,129,567	2,729,569	383,585	1,064,023
1955	2,104,235	2,352,343	326,253	1,157,813
1956	2,004,634	2,325,005	411,676	1,006,715
1957	1,384,872	1,770,482	250,663	854,022
1958	1,246,577	1,273,362	138,005	744,957
1959	1,214,353	1,335,164	110,798	646,717

Source: Annual Reports of the Mines Division, Provinces  
of Alberta and British Columbia







Number of Men Employed, Manshifts Worked and  
Wages Earned, Provinces of Alberta and  
British Columbia

	<u>No. of Men Employed</u>	<u>Manshifts Worked</u>	<u>Wages Earned</u>
1947	11,042	2,464,931	\$25,004,471
1948	10,992	2,261,205	26,900,117
1949	11,113	2,390,909	28,727,418
1950	10,245	2,171,165	26,297,062
1951	9,402	2,098,987	26,767,807
1952	8,866	1,915,692	26,635,177
1953	7,338	1,439,066	21,477,284
1954	6,155	1,198,547	18,079,487
1955	5,271	1,062,565	16,356,040
1956	4,814	1,034,221	16,099,228
1957	4,135	788,061	13,008,390
1958	3,116	578,294	9,167,588
1959	2,763	553,528	N.A.

Source: The Coal Mining Industry, Dominion  
Bureau of Statistics





SHIPMENTS from MINES by DESTINATIONS

ALBERTA	1951	1952	1953	1954	1955	1956	1957	1958
Railroads - Can.	2,443,886	2,065,365	1,625,783	743,743	435,269	385,388	152,693	56,420
- US	105	--	--	--	--	--	--	--
Ind. Consumers	599,909	575,875	457,559	411,427	372,375	382,295	348,063	362,268
Dom. "	778,944	612,129	559,891	628,406	678,416	633,014	516,710	469,500
Quebec	--	--	--	--	31	120	165	122
Saskatchewan	1,322,317	1,254,289	1,034,618	995,747	887,666	871,730	679,317	583,970
B. C.	897,338	1,004,671	862,146	897,716	943,327	860,013	674,025	532,992
Manitoba	493,800	386,478	271,804	286,360	293,554	305,155	247,665	226,302
Ontario	182,631	124,343	73,186	86,398	91,350	75,148	68,526	53,293
United States	81,005	69,549	47,119	32,196	32,265	45,652	85,687	39,869
Japan	44,317	5,432	--	--	--	--	1,137	20,831
Total	6,844,252	6,098,131	4,932,106	4,081,993	3,734,303	3,558,515	2,773,988	2,345,567

BRITISH COLUMBIA

Railroads - Can.	381,066	462,632	455,840	236,086	190,945	178,861	76,660	36,815
- US	--	--	--	--	--	--	--	--
Ind. Consumers	401,480	302,721	252,250	228,442	262,056	238,187	180,534	148,633
Dom. "	27,053	23,887	19,884	25,518	32,341	29,231	21,061	18,232
Alberta	59,051	19,778	10,488	923	569	454	682	453
Saskatchewan	6,199	4,886	4,051	4,230	4,316	3,801	2,262	2,343
Manitoba	220,055	220,829	201,372	189,248	219,608	244,651	215,375	148,617
Yukon	801	474	304	606	--	290	202	--
United States	79,169	61,423	62,873	36,794	116,907	96,808	91,767	68,300
Ships Bunkers	14,642	10,712	5,932	3,868	3,139	4,690	5,037	3,291
Ontario	36,691	12,897	868	55,582	50,386	63,239	87,951	64,348
Alaska	--	--	--	--	--	80	--	--
Total	1,226,207	1,120,239	1,013,862	781,297	880,267	860,292	681,531	491,032







### Mine Closures

A feature of the coal industry in Alberta and British Columbia for many years has been the large number of operating mines, the majority of which operate on a small scale and as "truck" mines serve a purely local trade. For example, in 1948, 195 mines were registered in Alberta alone. However, 87.3 per cent of the total production during that year was produced from forty of the mines.

The subsequent decline of the industry has forced a large number of mine closures and it is noteworthy that this has extended to many large as well as small mines. Closures of mines with a production of 10,000 tons per year or more since 1948 are as follows:

	<u>1948</u>	<u>1958</u>	<u>Closures</u>
Mines producing:			
200,000 tons or more per annum	11	3	8
100,000 to 200,000 tons per annum	15	6	9
50,000 to 100,000 tons per annum	14	6	8
10,000 to 50,000 tons per annum	<u>32</u>	<u>17*</u>	<u>15</u>
	72	32	40

\*The majority of these are quite small operations depending almost wholly on truck business.

### Transportation Costs

Western Canada is a sparsely settled country and volume coal markets are for the most part located at some considerable distance from the mines. Whereas United States coal moves an average distance of less than





300 miles to market, some of the distances involved in moving western coal are:

	<u>Miles</u>		<u>Miles</u>
Michel, B.C. to:		Drumheller to:	
Kapuskasing, Ont.	1725	Timmins, Ont.	1781
Fort William	1290	Fort William	1216
Winnipeg	871	Winnipeg	797
Flin Flon	939	Saskatoon	315
Vancouver	695	Trail	560
Trail	270	Vancouver	741

The cost of moving coal by rail varies with the mileage. There are no discounts for quantity and no difference in rate for grade of coal. The following are typical rates and costs per million BTU's in western Canada for various distances:

<u>Mileage</u>	<u>Approx. Rate per Ton per 100 Miles</u>	<u>Cost per Million Btu's Per 100 Miles</u>	
		<u>10,000 Btu</u>	<u>13,000 Btu Coal</u>
1200-1300	\$0.63	3.15¢	2.4¢
800-900	0.75	3.75	2.9
500-600	1.00	5.0	3.8
400	1.20	6.0	4.6
300	1.40	7.0	5.4

The cost of moving petroleum by pipeline over long distances such as in the case of the Interprovincial and Trans Mountain Pipelines runs from 0.6 cents to 0.9 cents per million BTU's per 100 miles.

The cost of moving natural gas in large diameter





pipelines such as Trans-Canada and Westcoast Transmission lines approximates 1.8 cents to 2.2 cents per million BTU's per 100 miles.

The cost of moving coal by railway over distances of say, 600 miles, is 3.8 cents to 5.0 cents per million BTU's per 100 miles.

The relative transportation costs are therefore:

Petroleum	1
Natural Gas	2.5
Coal	6

It can readily be seen that rail transportation imposes a very considerable handicap on coal as compared with petroleum or natural gas and this factor alone has been responsible for the loss of a good deal of coal's traditional markets. It also points up the desirability of using coal at or as near the point of production as possible.

Railway Freight Rates - Western Canada Coal Shipments  
Carload Lots -- Per 2,000 Pounds

FROM:	TO:					
	Fort William	Saskatoon	Flin Flon	Winnipeg	Vancouver (c)	(*)
Fernie	\$8.30	\$5.80	\$7.10	\$6.70	\$5.35	\$5.13
Michel	8.20	5.70	7.00	6.60	5.35	5.13
Bellevue	8.00	5.60	7.00	6.50	5.55	5.33
Lethbridge	7.70	5.40	6.60	6.10	5.55	
Canmore	8.20	5.30	6.80	6.60	5.05	4.83

(c) Competitive Rates

(\*) Applicable rates for transshipment by water  
Example - to Japan

\*\*\*\*\*







Freight rates on Coal and Coal Briquettes Moving  
into Subventions areas, Province of Ontario

Ref: CPR W. 57-M

FROM FERNIE & MICHEL and such other points referred to in the above tariff	TO	RATE
	Kapuskasing	\$10.30
	Sudbury	10.65
	North Bay	10.85
	Ottawa	10.75
	Kingston	10.75
	Toronto	11.75
	Hamilton	11.75
	Windsor	11.75

Applicable Subventions re the above points:

Industrial Use: Difference between laid down cost of  
Alberta and southeastern British Columbia  
coals and imported coals to a maximum of  
\$4.00.

Domestic Use: \$3.50 per net ton where freight rate is  
in excess of \$9.00 per ton but less than  
\$11.50.

\$4.00 per net ton where freight rate is  
more than \$11.50.

Above freight rates effective December 1st, 1958.

Transportation Subventions

A summary of the subvention assistance available  
to Alberta and British Columbia mines is as follows:





Alberta and B. C. (Crow's Nest) Coal

P. C. 1959-368

Effective fiscal year commencing April 1st, 1959:

1. The Board may grant financial assistance on the movement of western coal to points in Manitoba and Ontario for industrial use, other than for a railway, in an amount equal to the lesser of --

(a) the difference between the laid-down cost at a designated point of western coal and of imported coal, or

(b) \$4.00 per net ton.

2. The Board may grant financial assistance on the movement of western coal for non-industrial use or for a railway for use other than in locomotives as follows:

(a) on movements to Ontario points to which the freight rate per net ton is less than \$9.00, in an amount equal to 20 per cent of the freight rate applicable to the shipment;

(b) on movements to Ontario points to which the freight rate per net ton is greater than \$9.00 but less than \$11.50, in an amount of \$3.50 per net ton; and

(c) on movements to Ontario points to which the freight rate per net ton is \$11.50 or greater, in the amount of \$4.00 per net ton.

3. The Board may grant financial assistance on the movement of western coal for use by a railway in locomotives to points in Saskatchewan, Manitoba and Ontario, in an amount equal to -

(a) the difference between the laid-down cost to







1  
2 the railway at designated points of western coal  
3 and of such imported coal as would otherwise be  
4 used, or

5 (b) \$4.00 per net ton.

6 Alberta and British Columbia Coal

7 P. C. 1959 - 405

8 Effective for the fiscal year commencing  
9 April 1st, 1959:

10 1. The Board may grant financial assistance on  
11 export of coal to any country other than the United States  
12 of American or its territorial possessions in an amount  
13 not exceeding \$4.50 per net ton, as the Board may deem  
14 necessary to permit the coal to be competitive with other  
15 coal in that market.

16 2. The Board may grant financial assistance  
17 on coal sold and delivered for ships' stores for use as  
18 fuel by vessels navigating in salt water in an amount  
19 equal to 75 cents per net ton.  
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Tonnages and Costs of Alberta and British Columbia  
Crowsnest Coal Moved Under Subvention

<u>Fiscal</u> <u>Year</u>	<u>Tons</u>	<u>Cost</u>	<u>Cost per</u> <u>Ton</u>
1947-48	238,867	\$ 533,453.62	\$2.23
1948-49	281,981	630,111.63	2.23
1949-50	590,829	1,146,139.06	1.94
1950-51	763,098	1,475,799.51	1.93
1951-52	559,385	1,135,601.05	2.03
1952-53	597,462	1,018,836.74	1.71
1953-54	1,025,399	2,453,654.31	2.39
1954-55	847,739	2,363,878.52	2.79
1955-56	626,122	1,873,755.22	2.99
1956-57	594,069	1,826,768.87	3.08
1957-58	402,031	1,280,135.80	3.18
1958-59	151,351	474,783.25	3.14
	<u>6,678,333</u>	<u>\$16,212,917.58</u>	<u>\$2.43</u>

Subvention Movements of Alberta and British  
Columbia Crowsnest Coal - 1958/59

<u>To Ontario</u>	<u>Tons</u>	<u>Cost</u>	<u>Cost Per</u> <u>Ton</u>
To Ontario for Railway Use	14,905.00	\$55,101.86	\$3.70
To Manitoba for Railway Use	28,926.00	60,409.68	2.09
To Saskatchewan for Railway Use	1,292.00	1,114.85	0.86
To Ont. (Head of Lakes)	6,602.53	9,373.22	1.42
To Ont. (East of Head of Lakes)	99,625.18	348,783.64	3.50
Total	<u>151,350.71</u>	<u>\$474,783.25</u>	<u>\$3.14</u>

Source: Dominion Coal Board Annual Report 1958/59





Transportation Costs of Various Fuels

PETROLEUM

By Tank Car -- 35 cents per 100 barrel miles

1 barrel petroleum = 5,800,000 BTU

Cost - 6 cents/million BTU/100 miles

By Tank Truck -- Somewhat higher than above

By Trunk Pipeline -- 3.5 cents per 100 barrel miles

= 6/10 cents per million BTU/100 miles

(Source: D. B. Furlong, Oil in Canada, Oct. 12/59

- page 12)

Cost of moving Petroleum by Pipeline -- January 1st, 1959

Trans-Mountain Pipeline - Edmonton to Vanc. = 40 cents

per barrel

At 5.8 million BTU/barrel and 765 miles, the cost is

0.9 cents per million BTU/100 miles.

Interprovincial Pipeline -- 1958

Tariff -- Edmonton - Sarnia 64 cents per barrel

- Toronto 72 cents per barrel

Cost is 0.6 cents per million BTU/100 miles.

NATURAL GAS

Economics of Long Distance Transmission of Gas

(Submission by Can. West. Nat. Gas Co. Ltd. and

Northwest Utilities to Royal Commission on Energy,

Calgary, under Tab S, page 3, February, 1958)

<u>Cost per MCF per 100 miles</u>	<u>36"</u>	<u>30"</u>	<u>24"</u>	<u>20"</u>
100% LF	1.77¢	2.13¢	2.76¢	3.46¢
75%	2.36	2.84	3.66	5.63
50% LF	3.54	4.25	5.52	6.91







Natural Gas -- D. Cass-Beggs, Saskatchewan Power Commission  
9th Annual Dom. Prov. Research Conf. 1957

"Examination of the zone rates in operation for Trans-Canada Pipelines reveal at least one estimate of large scale transmission costs for natural gas. Based on the spread between Regina and Montreal, the cost per million BTU is approximately 22 mills at 50 per cent L. F., 18 mills at 75 per cent L. F., 16 mills at 90 per cent L. F. There is considerable variation over various sections of the line. The figures quoted, however, show that the cost of moving gas by rail is some five times that of moving gas by large pipeline. Transmission costs for a much smaller pipeline such as those used by SPC are consistent with those being of the order of 0.2 mills per million BTU per mile at high load factor."

Trans-Canada Pipe Lines -- Submission to Borden Energy  
Commission, Feb. 1958 - Excerpt  
from Exhibit C-24-B

Weighted Average Miles Haul 1701.6

Unit Cost of Transmission 30.321 cents

Unit Cost of Transmission per 100 miles -----1.782 cents

Westcoast Transmission Line - Borden Commission - page  
1158-59 of Trans.

650 miles of 30" line

Price to producer for dry pipe line gas in Jan.  
1963 -- 10 cents

Price received for gas at border 1958 was --- 22 cents

Leaves 12 cents for cost of transmission -- 650 miles  
= 1.9 cents per million BTU/100 miles.

At page 1158-59 of transcript, Paul Kayser stated cost





of transmission of gas in large diameter long distance pipelines in U. S. A. to be 1.5 cents per million BTU.

#### COAL

The cost of moving coal varies with the mileage. There are no discounts for quantity and no difference in rate for quality. The following are average rates and costs per million BTU in western Canada for various distances:

<u>Mileage</u>	<u>Rate per ton Per 100 miles</u>	<u>Cost per Million BTU</u>	
		<u>13,000</u>	<u>10,000</u>
1200-1300	\$0.63	2.4¢	3.15¢
800- 900	0.75	2.9	3.75
500- 600	1.00	3.8	5.0
400	1.20	4.6	6.0
300	1.40	5.4	7.0

Source: See Tabulation Freight Rates per 2000# Coal Shipments Carload lots.

#### SUMMARY

The following might be taken as relative costs of moving petroleum, natural gas and coal in relatively long distances, say 600 miles:

Petroleum	.6 cents to 1.0 cents per million BTU/100 miles
Natural Gas	1.78 cents to 2.0 cents per million BTU/100 miles
Coal	3.8 cents to 5.0 cents per million BTU/100 miles

The relative transportation costs would therefore be:

Petroleum	1
Natural Gas	2½ times
Coal	6 times







End-Use Patterns - American Bituminous Coals

1941 - 1958

In the United States the utilization pattern of bituminous coal has changed very considerably in recent years. While the tonnage of coal used for locomotive fuel and space heating has decreased substantially, that used for electric utilities and for coke manufacture has shown a very healthy increase and this coal, together with that used in heavy industry in the manufacture of cement, aluminum, fertilizers and chemicals, accounts for more than 78.5 per cent of the total production, with exports accounting for a further 12 per cent. As the population increases in western Canada, the same pattern could well follow as the result of greater industrialization.

The shift in the end use of American bituminous coal is well illustrated in the following tabulation:

Electric Utilities	61.8	68.7	101.9	155.	153.
Coking Coal	93.8	83.3	113.4	106.	76.5
Other Industrials	124.8	120.6	105.8	93.3	81.4
Retail Dealers	97.5	100.6	76.5	48.7	35.6
Steel & Rolling Mills	10.9	8.6	8.0	7.2	7.3
Cement Mills	6.8	7.0	8.5	9.0	8.2
Railway Fuel	97.4	110.2	54.0	12.3	3.7
Canada	18.2	21.9	22.8	20.7	12.2
Overseas	<u>2.7</u>	<u>19.3</u>	<u>33.9</u>	<u>47.9</u>	<u>38.0</u>
Total	<u>513.7</u>	<u>540.2</u>	<u>524.8</u>	<u>500.1</u>	<u>415.9</u>

Source: Bituminous Coal and Lignite,  
U.S. Bureau of Mines





COAL RESEARCH AND THE LONG RANGE FUTURE

by

Joseph Pursglove, Jr., Vice-President, Research  
and Development, Pittsburgh Consolidation Coal  
Co., Pittsburgh, Pa.

An address before the American Coke and Coal  
Chemicals Institute, White Sulphur Springs,

October 23rd, 1956.

INTRODUCTION: When asked to this meeting I was  
also invited to present a paper. In casting about for a  
title a few months ago I decided on one sufficiently  
broad to permit me to cover many of the things that we  
anticipated would emerge from the research stage and  
blossom into commercial developments before the time of  
this meeting.

First, I wish to give you a bit of history.  
As many of you know, our company was organized in late 1945  
so we have just been around for a bit over ten years.  
When questioned about the objectives of our organization  
at the time, the President of our company said: "There  
has never been a coal company with the tonnage volume and  
financial resources that could do the research and develop-  
ment work necessary to keep coal in the forefront as a  
supplier of energy and chemicals as required by our ex-  
panding economy. We believe Pitt-Consol will be in such  
a position and we visualize an active and vigorous program  
of research and development to accomplish these objectives.

Late in 1946 I was given the job of setting up  
a research and development organization that could find  
new and significant uses for coal. The assignment was







1  
2 as broad as that. I asked for a definition of the word  
3 "significant" and was told that for a company which at that  
4 time had more than 1.5 billion mineable tons of coal in  
5 the ground as reserves for the future (we now have over 2  
6 billion tons), we processes or plans using annual tonnages  
7 less than 500,000 to 750,000 would be "significant". I  
8 asked one more question. I was told that the money  
9 would be made available for any project or projects that  
10 our group could justify as having some chance of success.  
11 (Actually, things have worked out this way, too.)

12 So with these instructions in my pocket, we  
13 started in 1947 to put together a group capable of tack-  
14 ling this problem. Up to this period, none of our  
15 officers or directors had been involved in research and  
16 development projects on coal to any significant extent.  
17 Almost ten years' time and \$14 million dollars later,  
18 we feel confident in saying that we are now considerably  
19 more mature in such matters.

20 We have learned where the relatively near-term  
21 possibilities lie for coal processing, and where several  
22 longer-term, very promising opportunities can be  
23 developed by further work. I therefore would like to tell  
24 you what we think we know, and then touch upon the futures.

25 Background Discussion: One of our initial  
26 projects was devoted to the gasification of our large  
27 reserves of high-volatile Pittsburgh seam caking coals  
28 using the fluidized solid techniques developed by the  
29 oil industry for fluid catalytic cracking. Our partner  
30 in this venture was Standard Oil Company of New Jersey.  
The over-all concept here was to find a very high-capacity







1  
2 continuous method of converting Pittsburgh seam coal into  
3 a gas suitable for synthesis into liquid fuels.

4 We proved to both of our satisfaction that  
5 "synthesis gases" could be produced by this method  
6 using oxygen and steam as the fluidizing medium. But  
7 this process, by its very definition of its terms of  
8 development, was only economically attractive when huge  
9 quantities of "synthesis gases" were required for large  
10 synthetic liquid fuel plants. Such plants would cost  
11 multiples of millions of dollars and the economics of the  
12 world petroleum business toward the end of this development  
13 had been re-arranged by the opening up of the vast new oil  
14 fields of the Middle East.

15 In other words, the commercialization of a  
16 straight synthetic liquid fuels process was not at hand  
17 in 1950, so we decided to put the pilot plant reports  
18 on the shelf for future reference and continued work in  
19 the lab on radical improvements in gasification tech-  
20 niques. We are still at it. At the same time we turned  
21 to more near-term possibilities. As of today, we know  
22 of no method or process for converting coal completely  
23 into liquid fuels only that is economically attractive  
24 under today's conditions in the U. S. A. However, the  
25 tremendous growth in the use of liquid fuels all over  
26 the world and the conflict in the Middle East suggests  
27 that we should be prepared to move when the time is right,  
28 and we believe we will be in the position to do so.

29 In 1948 we began work on the application of  
30 this same technique to low-temperature carbonization  
through the knowledge we were then deriving from working





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with fluidized solid techniques in the gasification process. Up to the present this development, along with the organic chemical work on the coal liquids produced has occupied the greater part of our efforts, time and money. Almost eight full years have passed. Our one other sizeable project was the development of cross-country pipelining of coal which I'll tell you about briefly later.

These years of work are culminating in the coal processing developments you have probably read about at Cresap, West Virginia, eight miles south of Moundsville on the Ohio River. I want to tell you something about these developments because you will then know where we stand today in regard to commercialization.

We have learned through our continuous economic analysis of our coal processing research that commercially it must be done on a very large scale to be attractive economically. In the case of low temperature carbonization we must also have a large power station adjacent to our plant that can burn coal and/or char residue with equal economy under the boilers. We believed last year that if we had both these factors in hand, that is a large power station as well as one that could burn char, we would be ready to go ahead with our first commercial plant.

About this time the large new aluminum developments projected on the Ohio river of Kaiser at Ravenswood, West Virginia and Olin-Mathieson and Revere at Hannibal, Ohio, materialized. They, we knew, would create a new







1  
2 demand in the American Gas and Electric Company's system  
3 of approximately 900,000 kilowatts. Mr. Philip Sporn,  
4 President of American Gas and Electric Company, has care-  
5 fully planned to have several huge new units going on  
6 the line each year to take care of the system's normally  
7 growing needs, but whole new arrangements of great mag-  
8 nitude had to be made for such new additional blocks of  
9 power in his territory.

10 One such plan that evolved from this big proj-  
11 ected power demand consisted of an entirely new power  
12 station now under construction at Cresap, West Virginia,  
13 on a site we owned. This site is on top of a large  
14 tract of coal our company controls. The whole tract  
15 contains close to a billion tons of mineable, Pittsburgh  
16 seam coal that fronts the Ohio river frontage for some  
17 sixteen miles with Moundsville some place close to the  
18 midpoint. This new station is named the Kammer Station  
19 for H. A. Kammer, Executive Vice-President of American  
20 Gas and Electric Company, and it is being designed and  
21 built under Mr. Kammer's direct supervision so that it will  
22 burn coal and/or char as noted above. The Olin-Mathieson  
23 Chemical Corporation and Revere Copper and Brass Company  
24 will own two of the three initially installed 225,000  
25 kilowatt units, and American Gas and Electric Company  
26 will own the third unit. The Kammer station is planned  
27 for an ultimate capacity of 1,350,000 kilowatts. American  
28 Gas and Electric Company will manage the station, pro-  
29 vide standby power, and will integrate this operation  
30 into its whole seven-state system.

31 We have been working with the Babcock & Wilcox





1  
2 Company and American Gas and Electric Corporation for  
3 several years on the problems involved in the burning of  
4 our low-volatile char. I could give a whole talk on  
5 the magnitude and complexities of the various programs  
6 we worked through on this combustion problem alone.

7 Suffice it to say here that both Babcock & Wilcox Company  
8 and American Gas and Electric Corporation exhibited the  
9 true scientific pioneering spirit that is so essential to  
10 get any laboratory and pilot plant results translated  
11 into a commercial accomplishment. We are very grateful  
12 to the personnel of both organizations and can tell you  
13 that there are a lot of very sound reasons why they are  
14 both leaders in their respective fields.

15 Cresap Development: With the 675,000 kilowatt  
16 Kammer station being built to burn our char, we had the  
17 foundation laid for our own developments. First, an  
18 entirely new mine, named the Ireland mine for  
19 R. L. Ireland, the Chairman of our executive committee,  
20 is now being opened. It will have a productive capacity  
21 of 3 million tons a year, and can be expanded to 5 million  
22 tons as the Kammer station grows. Coal will be delivered  
23 directly by belt from the mine slope into the 450,000-  
24 ton stockpile of the power station. Our low-temperature  
25 carbonization plant, or char maker, as we call it, will  
26 be located between the stockpile and the boilers. Coal  
27 moving in a direct line from mine to stockpile to  
28 boilers can be intercepted and passed through the char  
29 maker. Char is then put back into the former coal  
30 stream and then moves along through the bunkers and  
feeders and into the cyclone burners.







The liquids removed from the coal, approximately 26 to 30 gallons per ton of coal treated, are then moved through a whole train of liquid processing, refining, purifying and manufacturing steps in order to make products that (1) have qualities that permit them to fit into late 1958 and 1959 markets; (2) that will go into markets of large enough size to absorb such a volume production at one geographical location; and (3) that the overall estimated price realized for these products in the 1958-59 markets will make the \$30 million investment in plant and working capital an attractive one.

Let me say here again, as I did earlier, that we have spent a very sizeable amount of all our money invested in low temperature carbonization research on the organic chemistry of the liquids we would produce, and the searching for and development of the marketing outlets we had to have. We thereby have hoped to avoid making the mistake of so many developers and promoters of low temperature carbonization processes. Of course, one must have a process that is as good as possible from a chemical engineering viewpoint, but the best process in the world is simply a scientific museum piece if the products produced will not yield enough gross income to make the whole venture attractive commercially. This sounds like a very naive statement for me to be making before such a group as this one, but I find myself making some such statements to would-be entrepreneurs in this field each month.

If our first premise is correct, that this type of coal processing must be done on a large scale to be







1  
2 attractive, then as night follows day, the major outlets  
3 for the liquid products must be large volume outlets.  
4 Special markets for 2, 3 or even 5 million gallons a year  
5 of our liquid products will be most desirable and we  
6 intend to get some very welcome plus values from these  
7 types of specialty outlets. But we will have to dispose  
8 of about 50 to 60 million gallons of refined liquids a  
9 year. Five million gallons, or about 45 million pounds  
10 of material is a lot of stuff in the chemical industry,  
11 as you all well know, but it's less than ten per cent  
12 of our output.

13 Here is how we plan to do it: The lighter  
14 ends, approximately 15 per cent of our total, will be  
15 distilled out first and processed on a parallel course  
16 with that produced from petroleum cresylate streams we  
17 now handle at Newark. In this connection, most of you  
18 are aware that we are already operating an old plant at  
19 Newark, and also are building a new plant based upon our  
20 own process to refine petroleum cresylates. We had al-  
21 ready gone into this cresylic acid business at Newark,  
22 Mr. J., so as to get a running start in these markets  
23 before we approached the Cresap venture that I'm now dis-  
24 cussing. We are very glad that we took this step because  
25 it will in effect give us a three-year start. The Cresap  
26 cresylic plant will be designed after we have run our  
27 new Newark plant for several months. This Newark plant  
28 is now being put on the line. We believe that whole new  
29 uses for these acids in addition to the natural market  
30 growth factor will absorb this large production. We will  
also fill the gap left as "ADF" imported material





1  
2 gradually disappears from U. S. A. markets, because of  
3 the growth of west European chemical and manufacturing  
4 activities.

5 The intermediate materials consisting of 35 to  
6 40 per cent of the total will be split into a number of  
7 products:

- 8 1. Highly effective wood preservatives  
9 2. Road tar components  
10 3. A feedstock for a carbon black plant.

11 We are currently working on commercial arrange-  
12 ments for the disposal through regular marketing channels  
13 of 1. and 2. above, and expect to be in the carbon black  
14 business with a partner or partners by building a modern  
15 furnace black plant at the Cresap site. Such a develop-  
16 ment will bring something new into that business because,  
17 as you know, all present furnace blacks are produced  
18 in the U. S. A. in the southwest and Gulf coast areas  
19 from very special aromatic feedstocks from oil refineries.

20 The carbon black plant we envisage will make  
21 approximately 50 to 60 million pounds per year of abrasion  
22 blacks. This is a small percentage of the total U. S. A.  
23 black market of around 2 billion pounds a year, but it's  
24 an appreciable item in the northeastern U. S. A. abrasion  
25 black markets. Here again we plan to use regular market-  
26 ing channels.

27 The heavy bottoms will be fed to a coker  
28 producing a green coke. This green pitch coke will be  
29 mixed with green petroleum coke from Sohio's new Toledo  
30 and existing Lima refineries. These mixtures will be  
calcined at a new plant being built at Cresap by







1  
2 Mountaineer Carbon Company. This is a jointly owned  
3 corporation of Pitt-Consol and Sohio put together for  
4 the purpose of building and operating the calcining plant,  
5 and marketing the electrode carbons produced.

6 This, then is the presently contemplated com-  
7 plete picture at Cresap. No doubt, further processing  
8 equipment of one kind or another will be added to the  
9 plans before the whole complex is in operation. We are  
10 thinking of producing resins and several different  
11 derivatives of the acids. No one has ever had such  
12 quantities of these materials "under one roof" so to speak  
13 so the possibilities here of large scale further pro-  
14 cessing are almost unlimited. We invite chemical pro-  
15 cessors to consider us as new large-scale suppliers so  
16 that they, along with us, can look down new chemical-  
17 processing vistas.

18 Frankly, we would hope to be able to dispose  
19 of over half our total acid production by further process-  
20 ing by us or others in this manner.

21 I have purposely gone into the details of our  
22 Cresap venture because it gives you an idea of the com-  
23 mercial planning and possibilities better than a two-  
24 hour talk in general terms.

25 I mentioned the coal pipeline project previously  
26 as one that had also absorbed a lot of our time and money.  
27 Before proceeding to the futures as we see them, I want  
28 to tell you about the pipeline because it in a way ties  
29 in with coal processing as you will see.

30 Pipeline Description: Our 110-mile line from  
southeastern Ohio to Lake Erie is all in the ground, has





1  
2 been pressure-tested, water has been moved through its  
3 entire length and coal shipments will begin late this  
4 year when the terminals are completed. We expect to  
5 pump 1,300,000 tons a year of coal in a 50/50 coal/water  
6 mixture through the line which we expect to last more  
7 than twenty years. We are pumping this coal by three  
8 pumping stations, one at the origin point and two along  
9 the way. It is obvious that if you can pump coal 110  
10 miles, you can pump it 1,000 miles if the economics (that  
11 is, the competitive transportation means) justify such  
12 an installation. This will be a 10-3/4 inch diameter  
13 line. An 18-inch line which is perfectly practical,  
14 would handle 4 to 5 million tons a year, so it is not  
15 difficult to visualize large volumes of coal moving long  
16 distances in this manner.

17 The reason I said coal pipelines have a relation-  
18 ship to coal processing is that pipeline coal is of the  
19 right size for low-temperature fluidized carbonization.  
20 The pipeline terminal ahead of a power station could be  
21 greatly simplified if a carbonization plant were between  
22 the end of the pipeline and the power station's boilers.  
23 Sizeable credits would be available to be applied to both  
24 the pipeline terminal costs and the carbonization plant  
25 costs.

26 The future combination of pipelining coal and  
27 then processing this coal hundreds of miles from the  
28 mines could greatly alter the geographical distribution  
29 of our energy supplies and the geographical points of  
30 production of coal chemicals. It is an idea to provoke  
much thought for future commercial possibilities.







1  
2           Future Discussion: We believe that once the  
3 burning of char efficiently has been demonstrated, and  
4 once the high-capacity, fluidized-solid, low-temperature  
5 carbonization process has also been demonstrated on a  
6 full commercial scale, one can begin to plan on other  
7 manufacturing complexes consisting of coal to char to  
8 electricity, to chemicals, to pipeline gas, to gasoline,  
9 to synthetic rubber, and so on.

10           Many people and organizations have been think-  
11 ing primarily over the years of single-purpose coal pro-  
12 cessing plants. For example, plants where a black ribbon  
13 of coal flows into one end, and a fat stream of high  
14 octane gasoline moves out of the other. We have found  
15 by a long tedious process of economic trial and error  
16 that only multiple purpose plants attached to whole  
17 trains of other chemical processing plants can be econ-  
18 omically attractive at this time. The Cresap plans I  
19 have just told you about are a good example of this type  
20 of development. If one accepts this premise, then such  
21 installations will cost hundreds of millions of dollars  
22 involving large electric power stations, char-makers  
23 and chemical plants and ultimately synthetic liquid and  
24 gaseous fuel plants. The very size of the over-all  
25 investments required will have a tendency to restrict  
26 the location and numbers of such layouts.

27           You have all heard of the proposed low-temper-  
28 ature carbonization plants for Colorado, Wyoming and Mon-  
29 tana. We recently had occasion to review one situation  
30 in Wyoming. The entire electric utility power load of  
this whole vast state is less than 150,000 kilowatts. It  
may be 300,000 kilowatts in five years from now. By







1  
2 contrast just one of the Kammer station's three generators  
3 will produce 225,000 kilowatts. Where would one dispose  
4 of the char in volume in Wyoming? There is no need to  
5 ask where one would dispose of the chemicals and carbon  
6 black! The same sort of problems exist in all the far  
7 western states where large coal deposits exist.

8 We now believe that this type of large-scale  
9 development will be best applied in this lifetime at least  
10 to eastern coal deposits on navigable waters and adjacent  
11 to large-scale electric power plants. We believe that  
12 in such locations the production of large volumes of  
13 so-called coal chemicals can be produced economically.  
14 These same liquids could be the source material for  
15 further large-scale processing into a host of other than  
16 "coal chemicals" that are in growing demand in the U.S.A.

17 In addition, big incremental volumes of these  
18 hydrocarbon liquids could be converted into liquid fuels  
19 and high BTU pipeline gas. These energy markets are the  
20 huge ones, so if many plants such as the Cresap complex  
21 are built, only such markets could absorb the excess over  
22 chemical uses of the liquids. Just let's see what can  
23 happen at Cresap alone in a relatively short time.

24 Additions to the Kammer station providing outlets for  
25 more char could provide opportunities for incremental  
26 investments in addition to the various coal and liquid  
27 processing plants there. In addition, improvements in  
28 our technology, now under development in our laboratories,  
29 could easily increase our liquid yield per-ton-treated  
30 by at least 50 per cent. A combination of the two factors  
could multiply over-all Cresap liquid yield by three times





1  
2 over the next few years and thus make conversion to  
3 liquid and gaseous fuels economically attractive because  
4 you would make them incrementally. I am not contradicting  
5 what I said earlier about no process for converting coal  
6 completely to liquid and gaseous fuels in the U. S. A.  
7 is economically attractive today. My former statement  
8 did not apply to whole complexes as envisaged here, but  
9 to synthetic fuel plants producing only one or two basic  
10 products.

11 Conclusion: One can conclude then that we are  
12 on our way, and that the foundations are being laid for  
13 a whole new source of liquid hydrocarbons in north-  
14 eastern U. S. A. Into what form these sources will be  
15 ultimately converted, only time will tell, but whole new  
16 industries for this part of U. S. A. are in the making,  
17 and whole new frontiers for chemical processing will be  
18 opened up. One need not worry about a shortage of supply.

19 Since being admitted to the chemical congreg-  
20 ation, we have often heard the expression used, "The  
21 chemical industry is its own best customer." We look  
22 forward with pleasure to serving you.  
23  
24  
25  
26  
27  
28  
29  
30







Recoverable Coal Reserves -- Canada

Nova Scotia	983,512			
New Brunswick	44,907			
Ontario	50,000			
Manitoba	16,800			
Saskatchewan	6,563,440	21.1%	6,563,440	22.1%
Alberta	17,218,870	55.5	17,218,870	58.0
B. C.	5,897,740	19.0	5,897,740	19.9
Yukon	217,280	95.6%	29,680,050	100.0%
N. W. Territories	70,000			
	<u>31,000,000</u>			

Source: Royal Commission on Coal, 1946 - Page 11

Total Available Energy Resources  
as at December 31st, 1957  
(Expressed in trillions of Btu's)

ALBERTA

Natural Gas	21,000)		21,000)	
Natural Gas Liquids	1,940)	2.2%	1,940)	3.4%
Petroleum	18,000)		18,000)	
Oil Sands	626,000	34.3		
Coal	<u>1,158,190</u>	63.5	<u>1,158,190</u>	96.6
	<u>1,825,130</u>		<u>1,199,130</u>	

CANADA

Natural Gas	26,000)		26,000)	
Natural Gas Liquids	2,430)	1.6%	2,430)	2.0%
Petroleum	20,900)		20,900)	
Oil Sands	626,000	20.4		
Coal	<u>2,390,000</u>	78.0	<u>2,390,000</u>	98.0
	<u>3,065,330</u>		<u>2,439,330</u>	

Source: Alberta Industry and Resources, 1959  
(Alberta Bureau of Statistics) Page 101





Natural Gas Utility Sales in Canada  
1946 - 1958

Millions of cubic feet

	1958		1946-50 Average	
Residential	75,138	36.5%	21,219	48.1%
Commercial	37,802	18.3	10,065	22.8
Industrial	90,080	43.7	12,872	29.1
Other	3,002	1.5	179	--
Total	206,022	100.0%	44,335	100.0%

Source: Gas Facts, 1958 - Page 240

Projected Gas Sales to Ultimate Consumers  
By Class of Service, U. S. A.  
1958 - 1970

Millions of Therms

	1958		1970 (Estimated)	
Residential, Heating and Cooling	18,222	22.7%	40,150	24.8%
Other Residential	9,902	12.3 35.0	18,440	11.4 36.2
Commercial	7,649	9.5	19,440	12.0
Industrial & Other	44,512	55.5	84,010	51.8
Total	80,285	100.0%	162,040	100.0%

Source: Gas Facts, 1958 - Insert





Natural Gas Utility Sales in Canada  
1946 - 1958  
Millions of cubic feet

<u>Year</u>	<u>Total</u>	<u>Resi- dential</u>	<u>Com- mercial</u>	<u>Industrial</u>	<u>Other</u>
1946-1950 avg.	44,335	21,219	10,065	12,872	179
1951	65,056	28,442	14,606	21,868	140
1952	66,133	28,392	14,936	22,678	127
1953	70,868	30,383	16,008	24,284	193
1954	87,467	37,061	19,803	30,275	328
1955	117,800	45,266	23,325	48,699	510
1956	143,726	52,040	25,898	65,631	157
1957	168,783	61,238	30,979	75,385	1,181
1958	206,022	75,138	37,802	90,080	3,002

Source: Gas Facts - 1958, Page 240

Projected Gas Sales to Ultimate Consumers,  
By Class of Service, U. S. A.  
1958 - 1970  
Millions of Therms

<u>Year</u>	<u>Residential Heating and Cooling</u>	<u>Other * Residential</u>	<u>Com- mercial</u>	<u>Industrial and Other</u>	<u>Total</u>
1958	18,222	9,902	7,649	44,512	80,285
1959	19,790	10,470	8,330	47,090	85,680
1960	21,420	11,060	8,990	49,610	91,080
1961	23,060	11,670	9,720	52,390	96,840
1962	24,670	12,290	10,480	55,040	102,480
1963	26,410	12,950	11,340	57,960	108,660
1964	28,270	13,650	12,230	61,240	115,390
1965	30,140	14,400	13,220	64,610	122,370
1966	32,120	15,170	14,340	68,070	129,700
1967	34,170	15,960	15,480	71,610	137,220
1968	36,150	16,760	16,730	75,560	145,200
1969	38,160	17,590	18,050	79,610	153,410
1970	40,150	18,440	19,440	84,010	162,040

\* Includes "other residential" use of all residential customers including those using gas for heating and/or cooling.

Source: Insert - Gas Facts, 1958







Average Return Per Ton of Coal Sold and Labour Cost  
1950 - 1959

Year	Steam Coal Mines		Alta. Domestic Underground		Average Wage Plus Benefits Per 8-Hour Shift	
	Realization Per Ton	Index	Realization Per Ton	Index	Index	Index
1950	* \$5.64	100.0	N.A.		\$17.88	100.0
1951	5.77	102.2	N.A.		13.78	107.2
1952	6.19	109.7	N.A.		15.06	117.0
1953	6.38	113.3	N.A.		15.63	121.5
1954	6.48	115.0	N.A.		16.01	124.3
1955	6.29	111.5	N.A.		16.00	124.3
1956	6.32	111.8	* \$7.06	100.0	16.36	127.1
1957	6.39	113.2	7.02	99.4	17.69	137.3
1958	6.11	108.1	6.90	97.8	18.16	141.0
1959	6.26	110.8	6.81	93.2	18.10	140.5

\* Source: Dominion Coal Board Annual Reports  
Canadian Coal Mine Costs and Revenues





ANGUS, STONEHOUSE & CO. LTD  
TORONTO, ONTARIO

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Miner's Minimum Wage and Consumer Price Index  
1950 to 1959

	Wage Increase Per 8-hrs.	Miners Minimum Daily Wage Rate	Wage Index	Consumer Price Index	C. P. I. Index
1950	--	\$10.95	100.0	102.9	100.0
1951	\$0.80	11.75	107.2	113.7	110.5
1952	1.40	13.15	120.0	116.5	113.3
1953	--	13.15	120.0	115.5	112.3
1954	--	13.15	120.0	116.2	113.0
1955	--	13.15	120.0	116.4	113.2
1956	0.50	13.65	124.8	118.1	114.8
1957	0.70	14.35	131.0	121.9	118.6
1958	0.40	14.75	134.7	125.1	121.5
1959	0.40	15.15	138.4	126.5	123.0







Wage and Benefit Costs -- 1950/1959

	<u>Wage &amp; Other Increases</u>		<u>Average Wage Earned Per Shift</u>	<u>Cost of Holiday Pay Per Manshift</u>		<u>Cost of Welfare Fund &amp; Benefit Per Manshift</u>		<u>Total Wage Fund &amp; Benefit Cost Per Shift</u>		<u>Index</u>
	<u>Wage Increase Per 8-hr. Shift</u>	<u>Welfare Fund Contribution Cents/Ton</u>								
1950	--	- (15¢)	\$11.70	\$0.42		\$0.76		\$12.88		100.0
1951	\$0.80	- (15¢)	12.52	0.45		0.81		13.78		107.2
1952	1.40	- (15¢)	13.83	0.42		0.81		15.06		117.0
1953	--	5 (20¢)	14.16	0.64		0.83		15.63		121.5
1954	--	- (20¢)	14.32	0.71		0.98		16.01		124.3
1955	--	- (20¢)	14.30	0.70		1.00		16.01		124.3
1956	0.50	2 (22¢)	14.67	0.63 <del>0.09</del>		0.97		16.36		127.1
1957	0.70	1 (23¢)	15.58	0.74 <del>0.09</del>		1.28		17.69		137.3
1958	0.40	4 (27¢)	15.66	1.01 <del>0.09</del>		1.40		18.16		141.0
1959	0.40	- (27¢)	15.83	0.78 <del>0.09</del>		1.40		18.10		140.5





Source: Dominion Coal Board Annual Reports  
Coal Mines Operating Costs and Revenues





1  
2  
3  
4       There is some statistical material in the  
5 back of the brief, sir. I think I have covered enough  
6 ground and taken enough time already. However, I would  
7 like to direct your attention to some supplementary  
8 material which I handed to the Secretary last night which  
9 deals with wages, wage costs, the average return per ton  
10 of coal sold and labour costs.

11       In that connection I would like to point out,  
12 sir, that you will note the average steam coal mine's  
13 return per ton of coal sold in 1950 to 1959. In the  
14 ten-year period, the selling price of coal was increased  
15 by 10.8 per cent. Actually the realization from coal in  
16 1959 was less than it was in 1954. In 1954, the figure  
17 was \$6.48 a ton, in 1959 it was \$6.26 a ton.

18       There is also another data sheet which shows  
19 the breakdown of costs. It shows the cost f.o.b. cars,  
20 the total cost, the coal sales, the total income, profit  
21 and loss, and so on. This material has been taken from  
22 the annual reports of the Board.

23       THE CHAIRMAN: I was wondering if you are  
24 able to give me the percentage of the reserves in  
25 Alberta, what can be mined by strip methods and what  
26 by underground workings, a rough percentage?

27       MR. WHITTAKER: I do not think I can give it  
28 to you in five minutes, but I think I know where I can  
29 get it and I will file it with the Commission.

30       THE CHAIRMAN: Will you let me have it?







1  
2 MR. WHITTAKER: Yes.

3 THE CHAIRMAN: I suppose there are also changes  
4 in metallurgical techniques which will diminish to some  
5 extent the quantity of coal that will be required in  
6 your steel production?

7 MR. WHITTAKER: Yes, there are some alternative  
8 methods of production by blast furnaces which are  
9 applicable when small outputs are involved. But when  
10 you get into large outputs, let us say of 800 or 900  
11 tons of pig iron per day, and getting up to 2,000 and  
12 so on, the blast furnace is still much the best bet and  
13 much more economic than all these other processes.

14 THE CHAIRMAN: I understood that they are  
15 introducing oxygen direct.

16 MR. WHITTAKER: That is very true. Also they  
17 are doing a lot of sintering outside the blast furnace and  
18 preparatory work, but of course that does take coke or  
19 carbon of some kind.

20 THE CHAIRMAN: Quite. I am not suggesting  
21 any percentage, but the tendency is to improve the  
22 techniques of steel making as well as those of the coal  
23 required.

24 MR. WHITTAKER: That is right.

25 THE CHAIRMAN: Speaking about the measures  
26 taken by oil and gas to promote the sale of those fuels,  
27 what, if anything, has the coal organization done  
28 towards actively pressing their claims to consideration  
29 by consumers and offering inducements of the nature,  
30 similar to or different from those being offered by the  
other forms?





1  
2 MR. WHITTAKER: I think in the main, the  
3 difference between the coal industry and the petroleum  
4 industry is this, sir, the very size of the companies.  
5 I think it could be safely said that if you take into  
6 account the ramifications and interlocking structures and  
7 various controls, that the whole world oil industry - in  
8 the free world, at least, is in the hands of probably  
9 six or eight companies.

10 The result is that by the very size of those  
11 companies, they can do more in the way of sales promotion  
12 and that sort of thing than a number of small coal  
13 companies. Another reason is that all the coal companies'  
14 interests are not the same. I mean, gasoline is gasoline,  
15 and fuel oil is fuel oil, and residual oil is residual  
16 oil and economically there is not much difference in  
17 anybody's product. On the other hand, you produce various  
18 types of coal all the way from anthracite to lignite, and  
19 the ramifications in their uses, and the type of business  
20 they are in, create conflicts of interests. The companies  
21 involved are smaller and the result is you cannot get a  
22 unified effort into the coal industry that you can in  
23 the others.

24 THE CHAIRMAN: If the types of coal have their  
25 own special adaptations or special satisfying of demands,  
26 what difference is there between them and the different  
27 gases or oils? That is to say, is there any reason why  
28 the coal industry, as a total industry, could not embark  
29 upon a more progressive campaign of promoting the sale of  
30 coal generally?

MR. WHITTAKER: I will say this, sir, I will







1  
2 agree with you to this extent, that probably the coal  
3 industry could and should have done more than it has  
4 done. I have here two gentlemen who are both very well  
5 versed in the sale of coal and what has been done in  
6 that regard, and I suggest Mr. Bird might answer that  
7 question.

8 MR. BIRD: I will try to answer your question.  
9 We have the bituminous coal, the coking coal that is sold  
10 to power houses, but generally speaking you find this  
11 situation, that the gas people, or the oil people, go  
12 to the plant and simply pose a very definite question.  
13 "What is your cost of producing steam by coal?" They  
14 are told X number of dollars, and they are able to say,  
15 "All right, we will sell you a fuel which will produce  
16 steam for a certain cost per thousand pounds of steam."  
17 At that point we are actually beaten, because we would  
18 then be forced to sell coal at considerably below the cost  
19 of production. We would simply be forced down all the  
20 time, while the substitute fuels are building up their  
21 load factors by those means at their disposal, which are  
22 not at the disposal of the coal industry.

23 THE CHAIRMAN: I was wondering whether, in view  
24 of the fact that up to fifteen years ago coal had enjoyed  
25 more or less of a monopoly as fuel, it had not become  
26 awakened to the necessity of rousing itself to these new  
27 interlopers in the fuel field.

28 MR. BIRD: I think, Mr. Chairman, that the  
29 coal industry has always been conscious of the fact that  
30 they were vulnerable to substitute fuels, and constantly  
attending to their markets. Salesmen were giving service





1  
2 to the users of coal, and suggestions to the type of  
3 heating equipment that can be used economically. How-  
4 ever, it finally got to the stage where there was just  
5 no more hope and nothing more could be done.

6 THE CHAIRMAN: The only means by which you could pro-  
7 mote that is the means extensively related to the cost of produc-  
8 tion. MR. BIRD: Yes.

9 THE CHAIRMAN: I am not suggesting you should  
10 do anything more at all, but I was just mentioning the  
11 fact that certainly in the east the oil interests,  
12 particularly in the maritime provinces, have certainly  
gone beyond that.

13 For instance, they have gone beyond it in  
14 furnishing equipment to use oil and connecting that with  
15 the consumption of oil over a period of years, and in  
16 that way it may make the capital expenditure more accept-  
17 able.

18 MR. BIRD: Yes, but it may be done in a small  
19 way in the west, but it would be rather small as it runs  
20 to considerable capital expansion.

21 THE CHAIRMAN: But you must, to a certain ex-  
22 tent, forget the small demands as in domestic require-  
ments.

23 MR. BIRD: That is right.

24 THE CHAIRMAN: And look to the larger mass used  
25 in thermal power and industry.

26 MR. BIRD: There was nothing the coal mines  
27 could do to stave off dieselization of the railway  
28 companies, for instance.

29 THE CHAIRMAN: That might be, but there was an  
30







1  
2 effort made to see if they could not develop a process  
3 of using a turbine from the gases from coal. It was  
4 tried out, but apparently it has not gone ahead very  
5 successfully.

6 MR. BIRD: Yes, it was instigated by the coal  
7 industry. Considerable work was done on it, but it did  
8 not progress to the point where it was successful.

9 THE CHAIRMAN: Were you interested in that, in  
10 the west?

11 MR. BIRD: Yes, the west instigated that.

12 THE CHAIRMAN: Mr. Whittaker mentioned foreign  
13 oil coming into Alberta. Where does that come from?

14 MR. WHITTAKER: I was referring to it coming  
15 into British Columbia.

16 THE CHAIRMAN: From British Columbia?

17 MR. WHITTAKER: Yes. There was a time a few  
18 years ago when oil was imported from California and was  
19 burned by one of the railroads.

20 THE CHAIRMAN: That was in British Columbia?

21 MR. WHITTAKER: It was in Alberta, too, but  
22 that is not the case now.

23 THE CHAIRMAN: Has that importation of oil been  
24 increased or decreased in quantity?

25 MR. WHITTAKER: There is a substantial quantity  
26 of imported oil being used in the coastal areas of British  
27 Columbia for industrial purposes. There is a large  
28 cellulose plant that is using imported oil, I believe.

29 THE CHAIRMAN: That will be in competition with  
30 the production of the oil in both British Columbia and  
Alberta?







1  
2 MR. WHITTAKER: That is right. The statistics  
3 show that even last year there was a very substantial  
4 importation of imported oil. That has always been the  
5 case for many years, even before we had much production  
6 in Alberta.

7 THE CHAIRMAN: Has that increased or decreased  
8 in the last ten years?

9 MR. WHITTAKER: I could not tell you that, sir.  
10 We can get those figures if you want them.

11 THE CHAIRMAN: I was wondering if you had  
12 considered any question of the transmission of electrical  
13 power. What is the prospect for that?

14 MR. WHITTAKER: That is pretty technical, sir,  
15 and I think you could get more reliable information from  
16 some of the power companies.

17 THE CHAIRMAN: When you suggested the power  
18 plants near coal mines, you have in mind to a large  
19 measure it will be the power industry located near the  
20 mine?

21 MR. WHITTAKER: Yes.

22 THE CHAIRMAN: Rather than transmitted over  
23 distances?

24 MR. WHITTAKER: There have been investigations  
25 made -

26 THE CHAIRMAN: I want first to know what you  
27 had in mind, whether that energy would be consumed right  
28 at that location.

29 MR. WHITTAKER: Primarily, yes; secondarily,  
30 some possible export. But there are some pretty formid-  
able difficulties in exporting power, and I do not think





1  
2 that situation has been resolved yet.

3 THE CHAIRMAN: The power plant in that case  
4 would be subsidiary to the industry which is going to  
5 use electricity?

6 MR. WHITTAKER: Yes. I am quite sure we can  
7 get some very good information from the power companies  
8 as to that.

9 THE CHAIRMAN: Yes, from the transmission  
10 companies.

11 MR. WHITTAKER: That is, long distance trans-  
12 mission and the possibilities of power export.

13 THE CHAIRMAN: The submissions which you made,  
14 as to the integration of the administration of all these  
15 energies, were they made before the Energy Commission,  
16 too?

17 MR. WHITTAKER: Yes. We made that submission  
18 to the Borden Commission in Regina at its sittings, and  
19 we said very much the same thing to them there as we  
20 are saying to you now.

21 THE CHAIRMAN: Yes. What you have in mind is  
22 an allocation to use all the different forms of energy.

23 MR. WHITTAKER: That is right.

24 THE CHAIRMAN: In which they can be said to be  
25 most suitable?

26 MR. WHITTAKER: Yes.

27 THE CHAIRMAN: There has been nothing from the  
28 Commission to indicate the view that it takes on that?

29 MR. WHITTAKER: I think the Commission have  
30 been preoccupied with other matters.

THE CHAIRMAN: What do you say about the use of







1  
2 gas in internal combustion? I think you more or less  
3 confined it to domestic use, heating, cooking and things  
4 of that sort.

5 MR. WHITTAKER: I think we said this: I do  
6 not expect it is practical to have any complete prohibition  
7 of the use of gas for industrial purposes. What I was  
8 attempting to say was this: That gas should be directed  
9 primarily to these premium uses for which it is best  
10 suited.

11 THE CHAIRMAN: What are the premium uses?  
12 In what sense?

13 MR. WHITTAKER: Household use.

14 THE CHAIRMAN: What is the significance of the  
15 word "premium" there?

16 MR. WHITTAKER: We will say household use, space  
17 heating, water heating.

18 THE CHAIRMAN: You mean in those it has the  
19 highest utilization of its energy content, most effective,  
20 most valuable, with the least waste.

21 MR. WHITTAKER: I will put it this way that for  
22 the matter of steam raising, coal can produce steam equally  
23 well, probably better than natural gas in large industrial  
24 installations. On the other hand, in the matter of  
25 cooking and water heating in the home and space heating,  
26 many people prefer the automatic fusion.

27 THE CHAIRMAN: I know they prefer it, but I  
28 was dealing with the basis upon which you would allocate  
29 one or the other form of its use. Would you consider it  
30 wasteful to heat a house by gas?





1 THE CHAIRMAN: Would you consider it wasteful  
2 to be at a house of gas?

3 MR. WHITTAKER: No.

4 THE CHAIRMAN: Would that extend to an  
5 apartment house?

6 MR. WHITTAKER: Well, you are beginning -- when  
7 you get into large institutional use, you are beginning to  
8 get into the borderline there. I would say in some small  
9 apartments, probably that gas would be the most --

10 THE CHAIRMAN: And you can get as high utiliz-  
11 ation of that as you can in internal use in a cylinder

12 MR. WHITTAKER: I would say that the use of it  
13 is justified in heating institutions up to that point  
14 anyway. I wouldn't quarrel with it if it would be  
15 practical to do so.

16 THE CHAIRMAN: I was wondering if your mines  
17 could go along and preserve some body - you have mentioned  
18 some body of life if all subsidies were withdrawn?

19 MR. WHITTAKER: I would doubt it.

20 THE CHAIRMAN: If you had to close them all,  
21 what would be lost permanently?

22 MR. WHITTAKER: The livelihood --

23 THE CHAIRMAN: I mean in terms of coal.

24 MR. WHITTAKER: Coal, well, the reserves of  
25 coal which had already been developed - it wouldn't be an  
26 economical proposition to re-open an underground mine  
27 after it has been closed for any length of time.

28 THE CHAIRMAN: You couldn't reach it from  
29 another direction, say?

30 MR. WHITTAKER: Well, it is possible.

THE CHAIRMAN: You see, some mines, say, in







1  
2 Cape Breton where they run under the Atlantic, you  
3 have very little prospect of regaining them once you  
4 close them, but in your position you are not handicapped  
5 by having only one side of access.

6 MR. WHITTAKER: In the mountain areas, that is  
7 true to a certain extent but not to the same extent as  
8 the undersea mines. There is more means of access,  
9 that is quite true, but there would still be some sub-  
10 stantial losses in coal reserves and in the plant and  
equipment in connection therewith.

11 THE CHAIRMAN: I am not suggesting for a moment  
12 that you face any possibility of that nature. I have  
13 always understood - at least I have understood in the  
14 last few months - that even in the development of the  
15 chemical industry, with a basis of coal, the quantity  
16 of coal required is relatively small. Would you agree  
with that?

17 MR. WHITTAKER: Yes. That is, the capital cost  
18 per ton of coal throughput is probably - is very high,  
19 put it that way.

20 The popular press has it you can make silk  
21 stockings and aspirin out of coal, but it wouldn't take  
22 many tons of coal to make a lot of those things.

23 MR. GUNN: Mr. Whittaker, I see on page 2  
24 of your brief, exhibit 46, that you today are representing  
25 four companies from the province of Alberta and the  
26 Crow's Nest Pass Coal Company Limited from British  
27 Columbia. Are you in a position to tell us as to whether  
28 any of these companies have made representations to the  
provincial government for assistance of any kind?







1  
2 MR. WHITTAKER: Yes, I think it would be true  
3 to say that they have.

4 MR. GUNN: And what assistance did they ask  
5 for, please?

6 MR. WHITTAKER: Offhand I wouldn't be prepared  
7 to say specifically. We have discussed our problem with  
8 the provincial government from time to time.

9 I think the provincial government has in general  
10 taken the attitude that assistance to the industry by  
11 way of subventions has been the responsibility of the  
12 federal government.

13 MR. GUNN: The provincial government is not  
14 interested themselves?

15 MR. WHITTAKER: Well, they have taken that  
16 attitude, I think, that it is up to somebody else.

17 MR. GUNN: And the representations then with  
18 the coal companies that you are representing here today  
19 have just been in the line of subventions only?

20 MR. WHITTAKER: No. As a matter of fact, I  
21 don't think we have ever, at any time, asked the  
22 provincial government to participate in subventions. I  
23 think it has been along other lines, but I am not so sure  
24 that in the future - certainly this brief has tried to  
25 indicate that our association at least feels that the  
26 manner of the preservation of the western coal industry  
27 is not solely the responsibility of the federal government,  
28 and that my own opinion is that the provincial government  
29 has every bit as much to gain or lose as the federal  
30 government, and it's an equal responsibility.

MR. GUNN: Yes, I appreciate that fact. That





1  
2 is why I was wondering what representations the companies  
3 that you are representing today had made to the provincial  
4 government. That is why I asked that question.

5 Now then, on page 2 of your brief, I quote:  
6 "We are therefore faced with the problem of finding  
7 and making available a huge increase in energy  
8 reserves to meet the demands of the future while at  
9 the same time making the most efficient utilization  
10 of the currently available supply."

11 Could you enlarge on that, please? In other  
12 words, can you answer yourself what the problem is, or  
13 tell us what the answer would be?

14 MR. WHITTAKER: Well, the answer is that each  
15 of the fuels should be used in that area where they are  
16 best suited. For instance, if coal can raise steam in  
17 a power plant, or in a large industrial undertaking as  
18 efficiently and at the same price as gas, then coal  
19 should certainly be used because the reserves of coal  
20 are very much greater than the reserves of gas or petroleum.

21 MR. GUNN: Would that then be determined, in  
22 your opinion, by, we will say, the Dominion Coal Board,  
23 or perhaps by a provincial organization set up for that  
24 purpose?

25 MR. WHITTAKER: Well, I think that the approach  
26 should be co-operative, and that the provincial government  
27 should actively interest itself in that problem.

28 MR. GUNN: Have they done that to date?

29 MR. WHITTAKER: I would say that they had not.

30 MR. GUNN: And again, sir, in your recommen-  
dation No. 3 which is contained on page 9 of Exhibit 47:







1  
2 "That the federal and provincial governments con-  
3 cerned should co-operate in measures which would  
4 make available to the coal industry a certain add-  
5 itional minimum tonnage of, say one million tons  
6 per annum which would ensure the continued economic  
7 operation of a nucleus of underground mining  
8 operations."

9 Would you have in mind what could be done with  
10 that one million tons of coal?

11 MR. WHITTAKER: Well, at the present time all  
12 the mines in this province and in British Columbia are  
13 working on a part-time basis.

14 MR. GUNN: Right.

15 MR. WHITTAKER: Some of them, for instance,  
16 a large part of their output is shipped outside the  
17 country. They could be vulnerable to changes in the  
18 policies of other countries and other areas, world com-  
19 petition, and so on.

20 I think what we are trying to point out is  
21 this: At the present time the price of gas, and I  
22 shouldn't just say the price, prices at which gas is sold  
23 is so low that coal can not possibly compete. There is  
24 no definite price of gas. The price of gas is anything  
25 below the price of coal, and the price of gas, we feel,  
26 is not dictated by the cost of producing and transmitting  
27 gas. The price is dictated by what they can get for it  
28 in the market.

29 We feel that from that an impossible situation  
30 develops, and it doesn't matter what our price is, the  
gas price is going to be lower. That is all there is to





1  
2 it. That is our understanding, and you can go all the  
3 way across the country right from Vancouver to Montreal  
4 and find that that is the situation.

5 MR. GUNN: Yes, but what I had in mind by virtue  
6 of my question is what did you have in mind as to what is  
7 to be done with this one million tons of coal?

8 MR. WHITTAKER: Our principal preoccupation,  
9 Mr. Gunn, is to continue living and we do not think that  
10 it is necessary to upset the whole economy.

11 All we are interested in at the moment is to  
12 get a modest increase in the market available to us so  
13 that we can continue to live, and operate and keep our  
14 personnel together, keep our mines in shape until the  
15 situation rights itself.

16 MR. GUNN: All right, then, again on page 10  
17 of your brief, sir, the last sentence in the second para-  
18 graph:

19 "It has been suggested that the government might  
20 consider the payment of part of the cost of the  
21 storage problem as an offset to the unemployment  
22 insurance cost which might otherwise have accrued."

23 Would you have any amount of money in mind when  
24 this brief was prepared?

25 MR. WHITTAKER: I think that you are going to  
26 hear the Drumheller Operator's brief right after this one,  
27 and while we have some interest in that, I think  
28 Drumheller has a greater interest and I am sure they can  
29 give you better information than I can.

30 MR. GUNN: Thank you very much. That is all,  
Mr. Chairman.







1  
2 THE CHAIRMAN: I was just wondering, Mr. Whitt-  
3 aker, in relation to what would that one million tons'  
4 increase be over? Your average in the last two or three  
5 years?

6 MR. WHITTAKER: You see, we have dropped - the  
7 production in this province, in the two provinces, has  
8 dropped from ten million tons to three million.

9 Now, I would think that another one million  
10 tons over what we have at the present time would put the  
11 existing mines in a position where they could operate  
12 on an economical basis; keep their head above water  
and ride out the present situation.

13 THE CHAIRMAN: That is, say with four million  
14 tons?

15 MR. WHITTAKER: Yes.

16 THE CHAIRMAN: Well, of course you assume that  
17 that will have to be done by subsidies of such a nature  
18 as will enable you to increase your sales by that amount?

19 MR. WHITTAKER: That is right.

20 THE CHAIRMAN: Have you any idea of what would  
be required?

21 MR. WHITTAKER: What would be the requirement?

22 THE CHAIRMAN: Yes, in the way of subsidies.

23 MR. WHITTAKER: Well, it would depend on the  
24 form of the subsidy.

25 THE CHAIRMAN: Take it as a local subsidy.  
26 Take it provincially. I don't mean the provincial govern-  
ment.

27 MR. WHITTAKER: Well, it might be something in  
28 the order of \$1.00 to \$1.50 a ton.  
29  
30







1  
2 THE CHAIRMAN: I suppose it is impossible to  
3 make any close estimate?

4 -MR. WHITTAKER: Well, you would have to sit  
5 down and just look at the particular country you have  
6 in mind and then work out what it would cost in each  
7 case.

8 THE CHAIRMAN: You haven't done that?

9 MR. WHITTAKER: Not entirely.

10 THE CHAIRMAN: Thank you, Mr. Whittaker, for a  
11 very excellent statement of the position of your industry.

12 We will now adjourn until 2.30.

13 ---Whereupon the hearing adjourned until 2.30 p.m.  
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1  
2 ---On commencing at 2.30 p.m.

3  
4 THE SECRETARY: May we come to order, please.  
5 Mr. Commissioner, I would now like to call upon  
6 Mr. H. Wilton-Clark who will present a brief on behalf  
7 of the Drumheller Coal Operators Association. This  
8 brief will become Exhibit No. 47.

9 ---EXHIBIT NO. 47: Brief on behalf of  
10 Drumheller Coal Operators  
11 Association.  
12  
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SUBMISSION OF  
DRUMHELLER COAL OPERATORS ASSOCIATION

Appearances:

Mr. H. Wilton-Clark,

Mr. S. G. McMullen, President

MR. WILTON-CLARK: Mr. Commissioner, may I present Mr. S. G. McMullen, President of the Drumheller Coal Coperators Association, and may I please sit down?

THE CHAIRMAN: Yes, indeed.

MR. WILTON-CLARK: I think, Mr. Commissioner, you will not require the reading of the first page which is merely a letter of qualification.

3220 - 1st Street S. W.,  
Calgary, Alberta,  
January 21, 1960.

Telephone: CH 3-4363

Royal Commission on Coal (1959).

Letter of Qualification

The writer has been requested by Mr. S. G. McMullen, President of the Drumheller Coal Operators Association, Drumheller, Alberta, (hereinafter called D. C. O. A.) to submit a brief to your Commission.

I am a graduate in mining engineering of the University of Alberta (B. Sc. in M.E.) and a member of the Association of Professional Engineers of Alberta. I am also a member of the Institution of Mining Engineers (United Kingdom) and of the Canadian Institute of Mining and Metallurgy. I hold Mine Managers' and Mine Surveyors' certificates for the provinces of Alberta and British





Columbia under the Coal Mines Regulation Acts of those provinces.

I have had in excess of thirty years' experience as a mining engineer, mine manager, general superintendent and general manager of coal mining properties. I have personal knowledge of operations and administration in the Drumheller area, having been general manager of the Commander and Atlas coal mines, now Century Coals Limited, for three and one-half years from 1943 to 1947. Since that period I have from time to time acted as a consultant for mines in the same area.

Yours very truly,

(sgd) H. Wilton-Clark

H. Wilton-Clark, P. Eng.

HWC:t

To: The Secretary, of the  
Royal Commission on Coal (1959),  
P. O. Box 127, Postal Station "D"  
Ottawa, Canada.

#### INTRODUCTION

The Drumheller Coal Operators Association has a membership of four operating coal mining companies. These four companies produce more than 95 per cent of the coal mined in the Drumheller valley. The companies are:

Amalgamated Coals Limited	East Coulee
Century Coals Limited	East Coulee
Federated Co-Operatives Limited	Drumheller
Red Deer Valley Coal Company Limited	Nacmine

The mines are fully equipped with both surface and underground plants to produce over one million tons of coal per year.





1  
2 As will be shown in the present submission,  
3 the member companies of the D. C. O. A. have problems  
4 chiefly related to marketing and which they consider  
5 peculiar to their own industry. It is principally for  
6 this reason that the presentation is made.

7 Coal in western Canada has always been divided  
8 into two categories:

9 (1) Coals which are primarily consumed in homes and space  
10 heating. These are called "domestic" coals.

11 Drumheller coal is the outstanding example of this.

12 (2) Industrial coals used primarily, until recently, as  
13 railway locomotive fuel and among other uses, where  
14 suitable, production of coke. Such coals are commonly  
15 called "steam" coals.

16 To some slight extent there is an overlap in  
17 the use of both types but fundamentally domestic and steam  
18 coals serve entirely different markets.

19 Table A and figure 3 show:

- 20 i. Total Alberta coal production, period 1937 to 1958  
21 ii. Total Alberta steam coal production, same period.  
22 iii. Total Alberta domestic coal production, same period.  
23 iv. Drumheller area production, same period.

24 The importance of domestic coal in general,  
25 and Drumheller coal in particular, is apparent.  
26  
27  
28  
29  
30





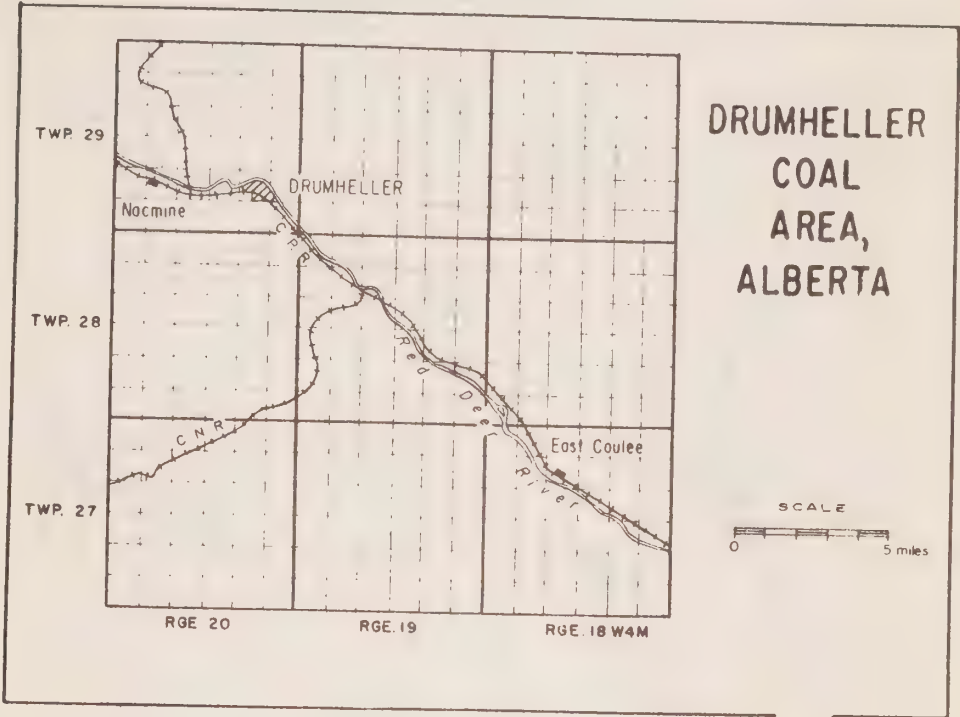


FIG. 1





FIG. 2







- 4 -

TABLE A

Details of Alberta Coal Production 1937 - 1958 incl.

Year	Total Alberta Tonnage	Total Steam Tonnage	Total Domestic Tonnage	Total Drumheller Tonnage
1937	5,551,682	2,414,003	3,137,679	1,289,971
1938	5,230,025	2,287,805	2,942,175	1,168,348
1939	5,518,105	2,556,801	2,961,304	1,223,338
1940	6,205,088	3,069,197	3,135,891	1,287,935
1941	6,970,064	3,671,357	3,298,707	1,458,455
1942	7,754,279	3,807,348	3,946,931	1,785,021
1943	7,677,982	3,469,993	4,207,989	1,838,738
1944	7,427,433	3,551,205	3,876,228	1,678,132
1945	7,801,248	3,460,736	4,340,512	1,722,816
1946	8,824,455	4,013,182	4,811,273	1,946,170
1947	8,074,596	3,547,318	4,527,278	1,857,416
1948	8,111,013	3,680,746	4,430,267	1,678,352
1949	8,616,983	4,240,310	4,376,673	1,608,598
1950	8,118,206	3,526,937	4,591,269	1,636,424
1951	7,661,276	3,509,333	4,151,943	1,566,102
1952	7,194,472	3,315,880	3,878,592	1,371,899
1953	5,917,423	2,692,670	3,224,753	1,028,067
1954	4,859,136	1,704,862	3,154,274	1,058,594
1955	4,456,578	1,539,363	2,917,215	933,957
1956	4,329,639	1,547,256	2,782,383	905,717
1957	3,155,354	845,923	2,309,431	763,673
1958	2,519,939	545,194	1,974,745	590,860



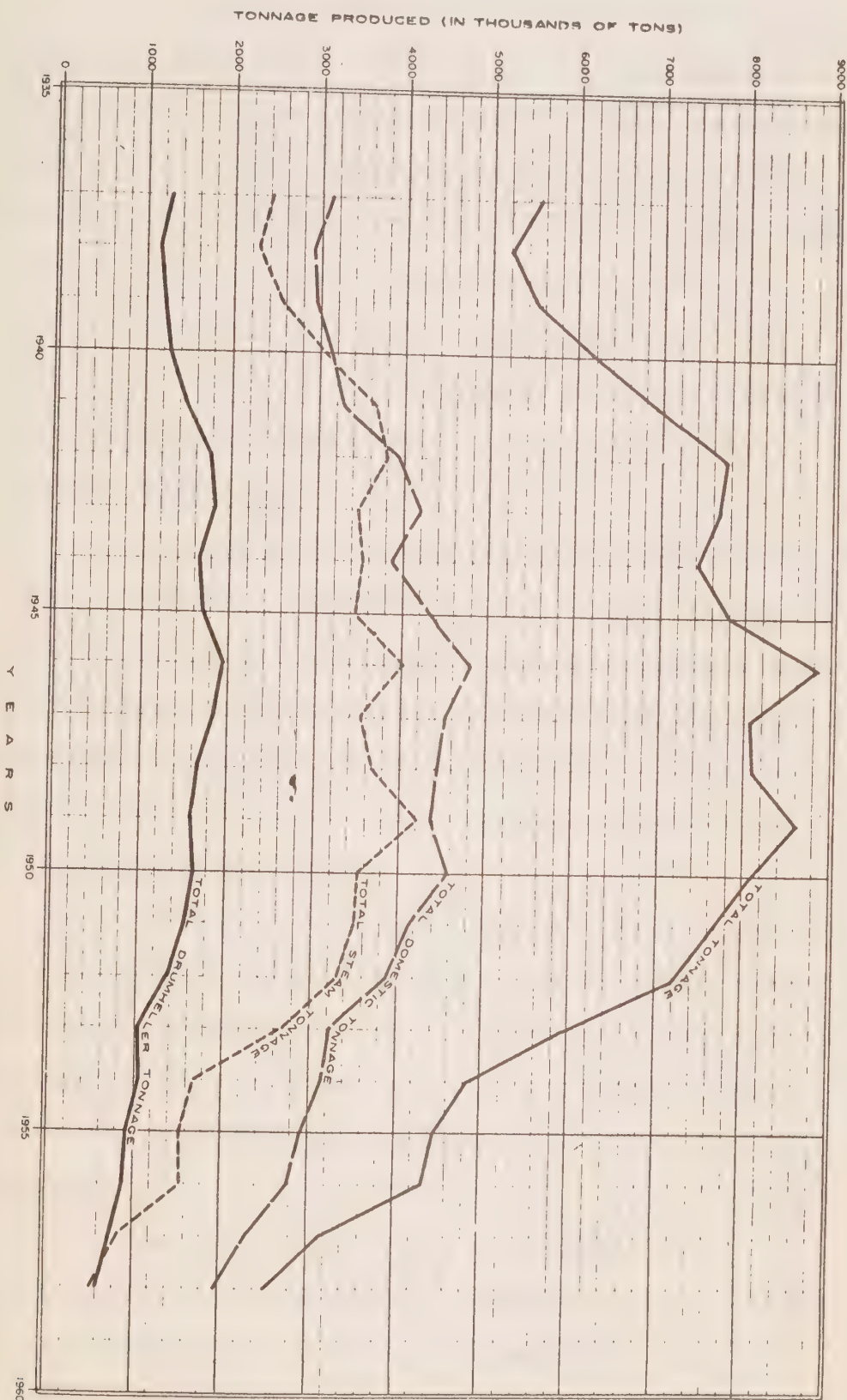


ANGUS, STONEHOUSE & CO. LTD.  
TORONTO, ONTARIO

Wilton-Clark

154

DETAILS OF  
ALBERTA COAL PRODUCTION  
1937 - 1958 INCLUSIVE







GENERAL

Location

Figure 1 shows the location of Drumheller relative to Calgary and Edmonton; and the Saskatchewan and British Columbia boundaries. It also shows an enlargement of the actual Drumheller area covering locations extending from Nacmine on the northwest through Drumheller to East Coulee on the southeast, and it is in this area that the mines of the D. C. O. A. group are located. As indicated, the valley is served by both the Canadian Pacific Railway Company and the Canadian National Railways, as well as by good roads.

Figure 2 shows Drumheller located in that portion of Canada extending from Vancouver Island on the west to Toronto on the east; major railways are also shown. Virtually all of the area covered in figure 2 and reasonably adjacent to these railroads and their branch lines has been or is marketing area for the D. C. O. A. mines.

Nacmine, Drumheller and East Coulee are all located within the valley of the Red Deer river with an average altitude of 2670 feet above sea level. The valley has been eroded by river action to a depth of 500 feet below the central Alberta plain.

GEOLOGY

Geology of the area is covered in:

- (a) Geology of Drumheller Coal Field, Alberta, by Allan, 3rd annual report of the Mineral Resources of Alberta, 1921, being Report No. 4 of the Scientific and Industrial Research Council of Alberta;







(b) Coal Areas of Alberta by Allan, 1943, Research Council of Alberta Report No. 34, Part V.

Quoting from Allan, the Edmonton formation, which is the top of the Upper Cretaceous formation, occurs at the surface throughout the area under discussion, and in Drumheller the Edmonton is of the order of 850 feet thick.

The general area contains some 430 square miles of which 75 square miles are underlain with coal. (Reference page 10 Report of the Mines Division, Province of Alberta 1958).

There are ten recognized seams in the area, of which the most important are Nos. 1, 2, 5 and 7 numbered in order from the bottom of the series. For all practical mining purposes, the seams can be considered flat-lying, the regional dip of the strata having been determined at about 20 feet to the mile in a west-southwesterly direction.

#### COAL CHARACTERISTICS

Most of the coal has been, and all of the coal from the D. C. O. A. mines is being produced from No. 1 or No. 2 seams which are the lowest seams in the Edmonton formation. The coal is classified under A.S.T.M. standards as subbituminous B. There is some slight variation in analysis among the member mines ranging between the following limits:

	Percentage		
Moisture	18.3	-	16.7
Ash	7.6	-	5.7
Volatile	31.2	-	31.4
Fixed Carbon	42.9	-	46.2





1  
2 The sulphur content ranges from 0.2 to 0.3  
3 per cent and can be considered negligible. Calorific  
4 values range from 9,540 to 10,390 BTU per pound. These  
5 samples were taken and the analyses made by the Division  
6 of Fuels, Mines Branch, Ottawa, 1958.

7 The coal is clean to handle, low in ash and  
8 free burning. It makes an ideal domestic fuel in the  
9 larger sizes ranging from the hard blocky lump down to  
10 and including stoker. For space heating and industrial  
11 uses, the coal makes a desirable fuel from nut down to  
12 and including slack.

#### 12 MINING PROGRESS

13 Mining operations commenced in 1911 with shafts  
14 and slopes being sunk to intercept a given seam below  
15 the valley floor. Over the years, generally speaking,  
16 a room and pillar method of mining has been evolved. At  
17 first, underground haulage consisted of small mine cars  
18 usually less than one ton capacity hauled by ponies.  
19 Mining was accomplished by hand pick, handheld drills,  
20 blasting with black powder, and hand loading. The mines  
21 have mechanized through the years until at this date  
22 virtually all the coal is undercut; sometimes also top-  
23 cut and sheared. The coal is mechanically drilled and  
24 usually shot with compressed air which allows control  
25 of pressures up to 10,000 pound/square inch so that under  
26 a given condition, the lowest shooting velocity can be  
27 used for the purpose of dislodging coal with minimum  
28 degradation. Coal is mechanically loaded into mine cars  
29 of five-ton capacity, fast and efficiently hauled by  
30 trolley and battery locomotives. In certain instances







1  
2 mechanical timbering machines are used, and in all mines  
3 collapsible roof jacks are used, enhancing face oper-  
4 ations pending replacement by permanent timbering which is  
5 always a necessity.

6 On the surface the mines efficiently screen,  
7 pick and load the coal into the various marketable sizes.

8 Table B illustrates the growth of underground  
9 mechanization by showing the total connected electrical  
10 horsepower underground through the years as compared with  
11 tonnage produced and the number of mines operating.

12 The development of mechanized mining methods  
13 entailed experimental efforts and purchase of machinery.  
14 Resultant modification of mining methods progressed through  
15 use of various types of equipment and has been entirely at  
16 the cost of the operators. During World War II minor  
17 loans were made for the purpose of purchasing equipment  
18 to increase coal production. These loans were repaid.  
19 The figures are given in the report of the Royal Com-  
20 mission on Coal 1946. In fact, except for railway sub-  
21 vention on coal to Ontario which has entailed small ton-  
22 nages, the Drumheller area has not received any direct  
23 or indirect form of assistance.

24 Even with intermittent work, the Drumheller  
25 area produced at the rate of 4.68 tons per man day in  
26 1958. In 1959, two large mines ceased operations. Given  
27 reasonable rates of production the four mines of the  
28 D. C. O. A. can be assured of an average of five tons per  
29 man day with an outlook towards an even better record in  
30 the future. This output per man day, as far as known,  
is second only to U. S. underground mines where, in  
general, physical conditions are more favourable.





- 8 -

TABLE B

DRUMHELLER FIELD STATISTICS

<u>Year</u>	<u>Tonnage Produced</u>	<u>Number of Mines</u>	<u>Aver. No. of Men Employed</u>	<u>Underground Mines: Tons/ Man/Shift</u>	<u>Total Elec. H.P. used below ground</u>
1911-16	?				
1917	760,558				
1918	1,001,159				
1919	919,751				
1920	1,355,316				
21	1,147,529				
22	1,356,373				
23	1,233,126			3.43	
24	1,006,913				
25	1,109,596				
26	1,383,959				
27	1,459,955				
28	1,489,452		1,987		
29	1,574,766	27	2,129		3,993
1930	1,432,873		2,275		
31	1,070,710		1,978		
32	1,245,673		2,012		
33	1,112,277	25	1,834		4,684
34	1,033,649	24	1,721		4,580
35	1,261,239	25	1,779		4,983
36	1,439,905	27	2,009		5,602
37	1,289,765	28	1,888		5,263
38	1,167,993	25	1,619		5,487
39	1,223,338	21	1,685		4,519
1940	1,287,935	22	1,715		5,194
41	1,458,455	23	1,698		6,248
42	1,785,021	20	1,839		5,797
43	1,838,738	21	2,087		5,615
44	1,677,582	22	2,004		6,469
45	1,722,816	21	2,031		5,857
46	1,946,170	20	2,116		5,434
47	1,857,416	20	2,206		6,447
48	1,678,352	20	2,251		8,122
49	1,608,598	20	2,093	3.71	8,622
1950	1,636,424	20	1,859	4.01	8,580
51	1,566,102	17	1,719	4.13	7,730
52	1,371,899	16	1,589	4.10	8,739
53	1,028,067	15	1,229	4.28	7,579
54	1,058,594	15	1,237	4.23	6,865
55	933,957	13	1,134	4.12	7,650
56	905,717	14	1,036	4.12	8,154
57	763,673	11	915	4.69	7,108
58	590,860	9	691	4.68	5,910
59	572,363	7			
55,364,614					

The above figures were taken from Annual Mines Branch Reports, Coal Statistics for Canada, and Commission Reports, except 1959.





## PRODUCTION HISTORY

Although mining commenced in 1911, the tonnage record is available only from 1917 - 1959 inclusive. It is probable that the valley has so far produced the order of 60 million tons of coal. The great problem connected with the Drumheller operations has been seasonal production. From the inception of the industry, except for war years, working time has been confined practically to six months a year, August to January, or at times September to February, depending on the weather.

Up to 1939, many of the mines closed down almost entirely for the other six months. Coal was produced by hand mining methods and miners were available during the working months. In non-working months, they obtained employment chiefly in agriculture, or went on relief. The market simply would not absorb coal during this six months of the year.

This condition changed during the interval of World War II due to continuing demand for available fuel but after the war, market conditions tended to revert to pre-war experience. Also, since the war, competitive fuels have come into the picture, namely oil, gas, rural electrical power, and competing strip mined coals.

Among other statistics, Table B shows the tons per man day produced for years where government figures are available, and it appears that there is a small and generally increasing trend in rate of production. This, of course, reflects the results of mechanization.

At the same time the labour situation has changed entirely. The old time skilled hand miners have







1  
2 been replaced by machine operators, mechanics, electric-  
3 ians, etc. Such men are also skilled and have, of  
4 necessity, had to be trained in the mines. In turn,  
5 the mines are dependent upon the services of such employ-  
6 ees and, to retain these men, must provide full annual  
7 employment.

8 In order to do this, the old system of shutting  
9 down in summer has been altered to a system of developing  
10 entries and room necks so that in winter when the  
11 market demand rises the same crew, aided by additional  
12 labour, can produce coal from rooms at the maximum ton-  
13 nage per man day. This is illustrated by the experience  
14 of the D. C. O. A. group for the calendar year 1959,  
15 during which production ranged from a low of 2.93 tons  
16 per man day to a high of 6.11.

17 For several years the operators have offered  
18 every inducement within their power, by sales efforts,  
19 together with summer discounts, extended credit terms,  
20 prepaid freight, etc., to market coal in the summer  
21 months. Table C shows the fluctuations in monthly  
22 demands during 1958 and 1959. The D. C. O. A. finds  
23 increasing dealer resistance to buying or stocking coal  
24 during the summer, but conversely a demand in cold weather  
25 which the mines are unable to meet under present con-  
26 ditions. With such market conditions, the apparent  
27 answer is for the mines to store and where possible sell  
28 summer production. Then, during the period of winter  
29 demand, the mines must produce at the highest possible  
30 rate together with picking up the stored coal. The plain  
fact is that the mines must be able to ship coal immedia-  
tely on demand, no matter how erratic such demands may





be, or lose markets to competitive available fuels. It is here that the mines require assistance.

On page 11 in table C which shows the coal output for Drumheller by months for 1958 and 1959, at this time I would like to make two or three changes which are by virtue of the figures which were not available to me at the time of the submission of the brief. Under the 1959 column for December I showed a figure of 84,047 tons. That figure actually became 82,878. The total for 1959 which was shown as 572,363, officially became 571,154.

THE CHAIRMAN: Which is that?

MR. WILTON-CLARK: The total for the year 1959.

If you would be good enough to put the year 1960, we now have the official figures for the first two months. For 1960 we have the figure for the month of January of 64,114; for February, 32,518. I draw your attention to February, 1958. The production was 52,000 and in 1959 it was 55,000, and in 1960 it is 32,500.

TABLE C

COAL OUTPUT - DRUMHELLER AREA BY MONTHS

	<u>1958</u>	<u>1959</u>
January	66,998	80,830
February	52,074	55,050
March	19,163	14,778
April	20,997	17,582
May	21,986	12,295
June	11,667	13,210
July	11,475	9,654
August	31,918	37,392
Sept.	60,050	61,306
October	101,395	93,710
November	94,480	92,469
December	<u>98,657</u>	<u>84,087</u> *
	590,860	572,363

\* Estimate







MARKETS

In 1958, 98 per cent of the Drumheller coal production went to the four western provinces, distributed closely as follows:

Manitoba	13 per cent
Saskatchewan	52 per cent
Alberta	19 per cent
British Columbia	14 per cent
Ontario	2 per cent

It is believed that 1959 will show similar results.

Drumheller coal is screened to certain sizes to suit market requirements, but the percentage of each size naturally is governed by the size constituents of the coal as mined, and is shown in table D.

TABLE D

	Size	Approx. Percentage
Lump	Plus 4½"	45.5
Egg	4½" x 2"	18.0
Nut	2" x 1.1/8"	6.8
Stoker	1.1/8" x 3/4"	9.2
Slack	3/4" x 0	20.5

Based on Round  
Hole Equivalent

The various sizes of coal are sold at different prices with lump commanding the highest price, and prices decreasing with sizing.

As previously mentioned, the coal is utilized chiefly for domestic and space heating with the exception of slack which is almost entirely sold to thermal power





1  
2 plants.

3 That, sir, has been more or less a brief histor-  
4 ical review of what has happened in this valley.

5 GENERAL STATEMENT

6 1. There is a continuing market available to  
7 the Drumheller mines.

8 2. Fossil fuels are, and apparently will con-  
9 tinue to be, the primary source of energy for many years  
10 to come.

11 3. In Canada coal constitutes a major potential  
12 source of fossil fuel.

13 4. Underground coal mines provide employment  
14 in relatively greater measure than other forms of energy.  
15 Sixty-four per cent of the total cost of production is  
16 paid out for labour, including fringe benefits, by the  
17 D. C. O. A.

18 5. The nation has depended on coal for survival  
19 during two wars. This could happen again. Once mines  
20 are closed down and abandoned, they can rarely be re-  
21 opened.

22 6. Continuation of underground mining even at  
23 the small level hereafter suggested will preserve a  
24 nucleus of technical knowledge, skilled labour, and  
25 continuous progress in production technique which is  
26 essential for the future requirements of the country when  
27 coal again becomes the major source of fossil fuel.

28 A technique developed under conditions applic-  
29 able to some other country is not necessarily effective  
30 in Canada or, in fact, in various parts of Canada.





SUMMARY:

The D. C. O. A. must maintain a minimum market of 500,000 tons per year. This coal must be supplied by the most efficient and economical method consistent with market requirements. There must be due regard to providing employment for a permanent staff plus seasonal labour which fits in with unemployment in other industries. The resultant would be a material saving to the general economy.

The D. C. O. A., based on experience, would produce the minimum of 500,000 tons per year at the rate of 90,000 tons during the six months of small demand, and 410,000 tons during the six months of relatively large demand.

In order to achieve this objective, the break-down would be as follows:

1. During summer months the mines shut down completely for a two-week holiday period for which the employees are paid, and which can therefore be considered as equivalent to a work period.

2. Based on a five-day work week there are:

February to July inclusive:

Possible working days	129	
Less: Paid holidays	10	
Statutory holidays	3	
May 1st, Union		
Holidays	<u>1</u>	<u>14</u> 115 days
Proposed work time		100 days
Production: 300 men @ 3 tons/man/day		90,000 tons

August to January inclusive:

Possible working days	131	
Less: Statutory holidays	<u>6</u>	125 days
Production: 560 men @ 5.9 tons/man/day		<u>410,000</u> "
		500,000 tons







1  
2 To the 300 permanent and 260 seasonal employees,  
3 at least 5 per cent can be added to account for absent-  
4 eeism due to all causes.

5 This program essentially depends upon shipping  
6 coal when possible and storing the balance so as  
7 to allow the mining of 90,000 tons in the summer months.  
8 Failure to carry out this program will have three effects:

9 (1) The unemployment of 300 men.

10 (2) The fact that the D. C. O. A. realizes the  
11 impracticability of attempting to operate mines without  
12 skilled crews who would not be available on a six-month  
13 work basis. The mines would have to close permanently.

14 (3) The capital necessary to replace the mines  
15 and equipment in the Drumheller field is in excess of  
16 \$5 million. It must be realized that the investment in  
17 the mines is lost unless coal is produced both in summer  
18 and winter.

19 The D. C. O. A. cannot supply statistics as  
20 to the effect of a closure of their mines on the earnings  
21 of employees of the logging industries, of railway workers,  
22 truckers, merchants and subsidiary local industries, but  
23 they believe such effect would be substantial.

24 There is admittedly no simple answer to the  
25 D. C. O. A. problem.

26 Experience has shown that a small market is  
27 obtainable in Ontario and that the present railway sub-  
28 vention applicable to Drumheller coals is essential to  
29 that market. Shipments have fluctuated from a high in  
30 1941 of 131,121 tons through a low of 38 tons in 1943, to  
12,728 tons in 1958. This subvention should be retained.





1  
2           The major marketing area lies in the four  
3 western provinces and to maintain these markets, assist-  
4 ance is required to enable a program which will allow  
5 the mines to meet existing conditions. This definitely  
6 entails a minimum production of coal during the summer  
7 months as indicated previously.

8           Where coal cannot be shipped, it must be stored  
9 at the mine. The cost of such storage of domestic coal  
10 is high. The coal requires screening and the laying  
11 down of sized coal on a bed of impacted slack. The coal  
12 must be spread over a large area, then covered with  
13 slack to avoid weathering, and spontaneous combustion.  
14 It is also desirable to treat the coal piles chemically  
15 to keep out the weather.

16           With all possible care, considerable degrad-  
17 ation is inevitable and, upon pick up and rescreening,  
18 parts of the larger sizes are down-graded to smaller  
19 sizes. The D. C. O. A. can supply figures - and I have  
20 some that I will hand to the Secretary - showing that  
21 the approximate total cost of storage is \$3.00 per ton.

22           The mines would be kept in operating condition  
23 for any eventuality, labour provided with jobs and con-  
24 sumers supplied with essential coal requirements by a  
25 combination of remedies which would not, in themselves,  
26 be unduly expensive or entail any long range capital  
27 costs.

28           To ensure a continuance of the mines in this  
29 field, the following proposals are made, details of  
30 which could be worked out between government and manage-  
ment.







1  
2 PROPOSALS

3 A. Assistance of \$3.00 per ton on lump and  
4 egg coal put to storage at the mine either above or below  
5 ground during the summer season and picked up for sale in  
6 the winter season. A subvention of \$3.00 per ton on these  
7 grades sold and shipped during the summer period.

8 That has not been made sufficiently clear.  
9 There is no thought of overlap on those two. It is one  
10 or the other. - storage or subvention.

11 B. A subvention of \$1.00 per ton on approximately  
12 75,000 tons of stoker and nut coal covering the entire  
13 year.

14 C. The total annual assistance envisaged in  
15 the above suggestions would be in an amount not to  
16 exceed \$300,000.

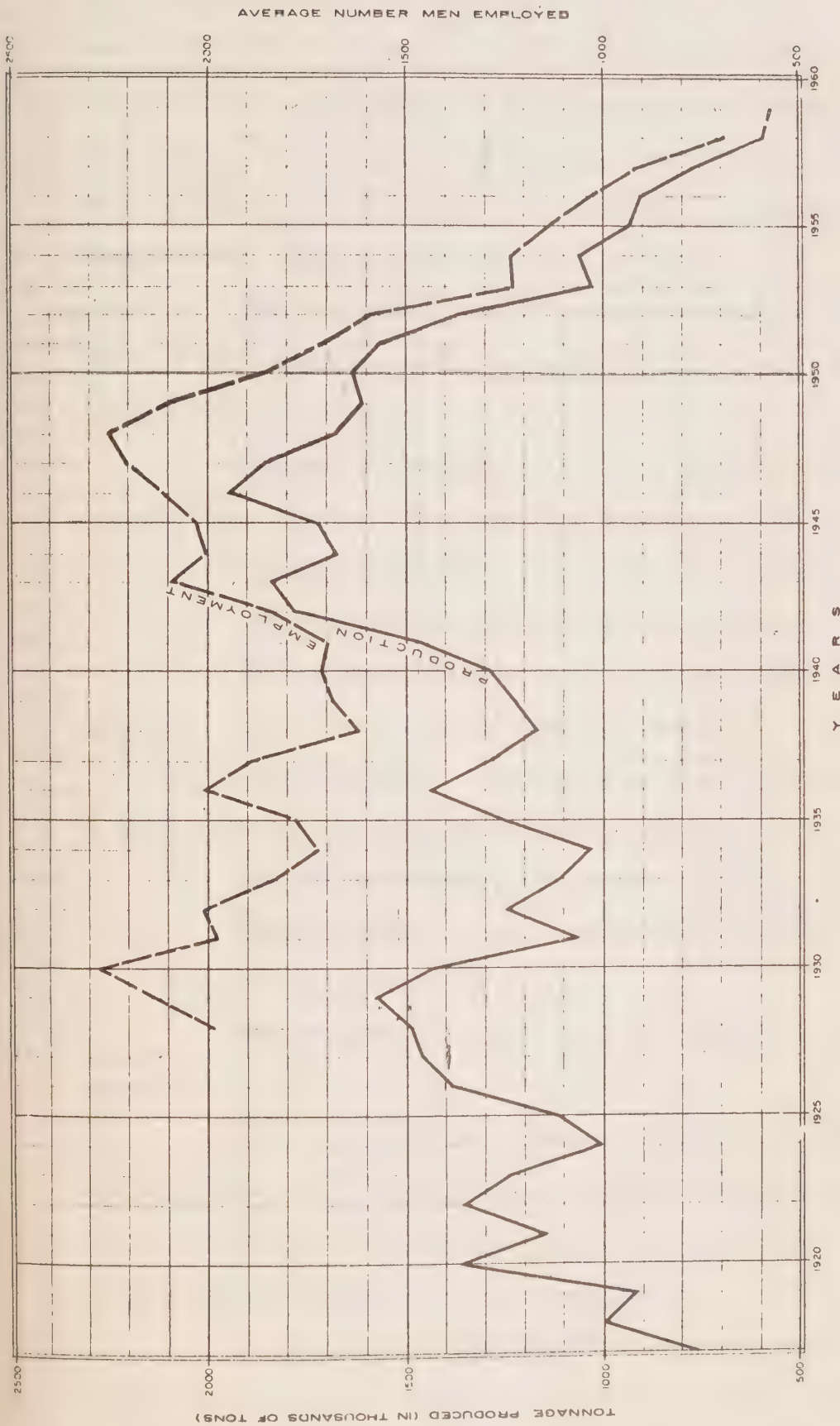
17 D. That such assistance to the industry be  
18 reviewed from time to time in order to maintain  
19 the required minimum market.

20 E. That research work on coal being carried  
21 on by the Divison of Fuels, Ottawa, and the Research  
22 Council of Alberta, be continued and expanded if possible.

23 The requested assistance represents less than  
24 four per cent of the current outlay for subvention pur-  
25 poses on all Canadian coals.

26 The remainder, sir, are graphs and tables to  
27 support the brief.  
28  
29  
30





DRUMHELLER COAL AREA  
PRODUCTION AND EMPLOYMENT RECORD

FIG. 4





1  
2 THE CHAIRMAN: What do you mean by assistance  
3 as distinguished from subvention? Do you mean the pay-  
4 ment of \$3.00? Simply a difference in names?

5 MR. WILTON-CLARK: It would very much become,  
6 sir, and I am not trying to argue about this, as to just  
7 what entails the definition of subsidy, subvention and  
8 assistance. Any way you like.

9 THE CHAIRMAN: All I want to know is this:  
10 Do you mean that an assistance of \$3.00 a ton to be an  
11 assistance in cash?

12 MR. WILTON-CLARK: It would have to be, if it  
13 were a case of the mines putting the money out for the  
14 purpose of picking and storing, holding over of coal.

15 THE CHAIRMAN: That is \$6.00 during the summer?

16 MR. WILTON-CLARK: No. I tried to make that  
17 plain to you. I said there was no overlap.

18 THE CHAIRMAN: What do you mean by that?  
19 I take them to be independent if there is no overlap.

20 MR. WILTON-CLARK: They are entirely.

21 THE CHAIRMAN: Then the amount is \$6.00.

22 MR. WILTON-CLARK: No.

23 THE CHAIRMAN: Then tell me how that is being  
24 done.

25 MR. WILTON-CLARK: Very well. If I put coal  
26 down at the mine, store it and pick it up during the  
27 winter, I will have taken a loss which I propose to prove  
28 to you of the order of \$3.00 per ton.

29 If I have to take that in order to exist in the  
30 industry, I want that \$3.00 in cash to offset the loss I  
have taken, but the corollary of that is this: If I mine







1  
2 the coal during the summer and a dealer can use it under  
3 a system of reduced prices, then I want the \$3.00 in  
4 terms of a subvention which is paid to the railroad.

5 THE CHAIRMAN: I see. You think with that you  
6 can make your way into the market?

7 MR. WILTON-CLARK: No, sir. We feel that we  
8 can maintain a minimum market which will enable the  
9 existing mines of the D. C. O. A. to continue in business.  
10 That is the minimum based on 500,000 tons of coal per  
11 year.

12 THE CHAIRMAN: Where do you think that money  
13 should come from?

14 MR. WILTON-CLARK: I very much think, sir,  
15 it should come from the nation.

16 THE CHAIRMAN: Why?

17 MR. WILTON-CLARK: Sir, I will ask - I don't  
18 wish to be argumentative - I would ask you why not?

19 THE CHAIRMAN: I am asking for an opinion.

20 MR. WILTON-CLARK: Why not?

21 THE CHAIRMAN: Why so? We are engaged in a  
22 private enterprise.

23 MR. WILTON-CLARK: That is correct. I live  
24 here in Alberta, sir. I live 150 miles from the Montana  
25 border. I can drive there in three hours and I can pick  
26 up a car \$500.00 cheaper than if I buy it in Calgary.  
27 All right, where does your national assistance as against  
28 private enterprise come in? I am not arguing. Again,  
29 I am asking you a question which occurs to me.

30 THE CHAIRMAN: Why did you start the mine up  
in the first place?





1  
2 MR. WILTON-CLARK: Because they were profitable.

3 THE CHAIRMAN: Couldn't you buy in Montana at  
4 that time?

5 MR. WILTON-CLARK: Oh, no, Montana doesn't  
6 produce. I talked about cars, automobiles.

7 THE CHAIRMAN: Oh, automobiles. I thought you  
8 meant a car of coal. We are speaking of coal.

9 MR. WILTON-CLARK: I wasn't. I switched from  
10 that to automobiles.

11 THE CHAIRMAN: You just explain what you mean  
12 by a car. I am speaking about coal.

13 MR. WILTON-CLARK: I know, sir, but I used a  
14 parallel. Is there any objection?

15 THE CHAIRMAN: No, not if you explain it  
16 sufficiently, but I still don't understand why in private  
17 enterprise you should call upon the Dominion merely to  
18 maintain your private enterprise. If you relate it to  
19 some national need or some national interest of any sort,  
20 I can get a bit of rationalization behind it.

21 MR. WILTON-CLARK: I think it is quite rational  
22 when I picked out the first thing that entered my mind,  
23 and I mentioned cars, automobiles. I have told you I can  
24 go 150 miles from here in three hours travelling time  
25 and save \$500.00 on a car, the same car and you ask me  
26 then, sir, why do I think that this nation should support  
27 and help what I consider to be a fundamental and required  
28 industry.

29 THE CHAIRMAN: That is what I am asking: Why  
30 you consider that that is an industry that is so valu-  
able to the Dominion that it ought to pay you for the  
production, whatever may be lost to production, of a  
half a million tons.







1  
2 MR. WILTON-CLARK: I think, sir, that this  
3 nation over a long range period is likely to suffer if  
4 it does not maintain it.

5 THE CHAIRMAN: I have been listening - at  
6 least I listened to one private enterprise man - who  
7 said he would not ask for anything like that at all,  
8 because it was incompatible with the whole rationale  
9 of his business, but you evidently don't agree with  
10 that.

11 MR. WILTON-CLARK: No, I don't.

12 THE CHAIRMAN: I don't mean to lay any particular  
13 stress on that, but do you think that when the mine  
14 became profitable you would turn half of that profit,  
15 or some return, to the Dominion for having saved you  
16 during this period of anxiety?

17 MR. WILTON-CLARK: Very much, sir. You will  
18 find that any mines which were in a profit-making  
19 position paid their 50 per cent to the government.

20 THE CHAIRMAN: That is what everybody else  
21 paid, but I am speaking about special payment inasmuch  
22 as you were asking for a special payment.

23 MR. WILTON-CLARK: I put it this way, sir.  
24 If this industry - and I am speaking only for the  
25 Drumheller valley - if this industry deserves to exist,  
26 then they can only do it in one way. That is the way  
27 I see it.

28 Please remember this, this is not the ability  
29 to produce coal and sell it, it goes further than  
30 that. The market, by experience, will only take only  
one coal during the six months' period of the year,





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and most of that is concentrated in two or three months

THE CHAIRMAN: How long would you want this?

MR. WILTON-CLARK: Just a moment, sir. I have not finished on that. To do this, they would have to have a staff of skilled men who are capable of doing it. I cannot do that by giving them jobs for six months and laying them off for another six.

THE CHAIRMAN: I suggest that the interest of the country is the preservation of the resource, and not the particular activity at the moment; so that if you put it on the ground of the preservation of that, of a valuable property of the Dominion, then the question arises as to whether or not it would be injured seriously, or actually damaged by closing the mine.

MR. WILTON-CLARK: I do not know whether I am answering your question, but I will say this to you, and I know you will check me if I am wrong - but to close one of these underground mines and leave it closed - and I will give you a year - in one year you will never get back into that mine.

THE CHAIRMAN: You mean in the same way, through the same entrances?

MR. WILTON-CLARK: You will never get into it, period.

THE CHAIRMAN: That is not always necessarily the case. I have heard it said from men who have experience in mines that the cost may be very considerable, but you can enter at another point.

MR. WILTON-CLARK: Let us clear that. I







1  
2 have heard you say this morning that you had been down  
3 in Cape Breton.

4 THE CHAIRMAN: Yes.

5 MR. WILTON-CLARK: Most of us here have, too.  
6 We know this thing. If you abandon one of those mines,  
7 did the Cape Breton people offer any hope to you, sir,  
8 that they would ever get back in there?

9 THE CHAIRMAN: Some of them, no.

10 MR. WILTON-CLARK: Very well.

11 THE CHAIRMAN: Why do you think that is?

12 MR. WILTON-CLARK: Well, by straight degradation,  
13 retrograde action of the mine. Once it is flooded - and  
14 those mines, incidentally, are subject not only to roof  
15 movement but to upheaval of the floor - in fact, I will  
16 answer it in this way, that if you had unlimited resources  
17 I think you could get back into such a mine. But no one  
18 who wanted to make it an economic enterprise could ever  
19 attempt to.

20 THE CHAIRMAN: What is your slope?

21 MR. WILTON-CLARK: I beg your pardon?

22 THE CHAIRMAN: What is the slope of your seams?

23 MR. WILTON-CLARK: In Drumheller the mines of  
24 which I am now talking, as I said to all practical intents  
25 are flat.

26 THE CHAIRMAN: So that you could enter them from  
27 another point at 360 degrees?

28 MR. WILTON-CLARK: Theoretically, practically,  
29 no.

30 THE CHAIRMAN: Why not practically?

MR. WILTON-CLARK: Because you locate a mine,







1  
2 whether by drift entrance or shaft entrance, where it  
3 is practical so to do. You go ahead and develop that  
4 mine, and in so doing over the years in time you must  
5 maintain the necessary haulageways. So you let the  
6 mine close down. You let her cave in. The timbers  
7 rot, and then you go somewhere else and approach it.  
8 Practically speaking, sir, there is nothing to approach.

9 THE CHAIRMAN: What do you mean? If the seam  
10 runs out, of course there is not, but if the seam  
11 maintains itself for several miles, do you mean to say  
12 you could not open it from another point?

13 MR. WILTON-CLARK: That is exactly what I  
14 maintain. If I have a mine that is laid out by engineer-  
15 ing principles, and I want to take out 50 million tons  
16 of coal, I have laid it out so that my optimum haulage  
17 is five miles. If I abandon the mine and later someone  
18 says "Go in and open that mine and get back to that coal  
19 by running ten miles around it," it does not make  
20 sense, sir.

21 THE CHAIRMAN: That will depend upon your  
22 physical layout, your physical condition which may cost  
23 more. I am assuming that it may. You can always get  
24 back if you are prepared to spend the money. What I am  
25 suggesting is that when you have an open field seam like  
26 that, you can approach it from different angles, and  
27 nothing you have said suggests to me it is impossible

28 MR. WILTON-CLARK: I will just show you where  
29 it is impossible, if you are going to be practical about  
30 it.





1  
2 THE CHAIRMAN: Certainly.

3 MR. WILTON-CLARK: I am talking about the  
4 Drumheller area and certain particular seams. This  
5 morning you heard people talking about the very important  
6 mountain seams, all of which are pitching.

7 THE CHAIRMAN: Yes.

8 MR. WILTON-CLARK: Just as you saw seams going  
9 under the Atlantic in Cape Breton. Every mine that has  
10 been opened - and that goes from 1900 on - I am talking  
11 at the moment of pitching seams.

12 THE CHAIRMAN: I thought you were speaking about  
13 Drumheller.

14 MR. WILTON-CLARK: I am, I am giving you an  
15 example of what you apparently think is not right. You  
16 said you can go in and leave a mine and it is still  
17 there theoretically, and you can approach it from some-  
18 where else. I want to show you why you cannot. Every  
19 mine that has been opened up in the mountains - and they  
20 have been the biggest mines in western Canada, Alberta  
21 and British Columbia - have only existed by virtue of  
22 the fact that stream cut valleys have made access by  
23 a railroad reasonable. Where those railroads have been  
24 able to go in, you develop mines, and the mines invar-  
25 iably go up the mountain and down the hill.

26 If you abandon those mines, you cannot get  
27 in where they used to be. They are a complete mess -  
28 the way you put it to me was this - that you could go  
29 around the mountain and get in.

30 THE CHAIRMAN: What is the sense of speaking  
about the mountains, when you are speaking about







1  
2 Drumheller. You had me understand that the seams were  
3 more or less level and there was no deep pitch in them.

4 MR. WILTON-CLARK: They are level.

5 THE CHAIRMAN: What is to prevent you? My only  
6 point is this. If your present operations were lost,  
7 would that be an absolute loss of coal forever?

8 MR. WILTON-CLARK: Yes, to a large extent.

9 THE CHAIRMAN: That is your opinion. I will  
10 accept it as that.

11 What do you say of the province contributing  
12 a bit to the help of the provincial industry?

13 MR. WILTON-CLARK: I have nothing against that.

14 THE CHAIRMAN: That is some concession. Who  
15 do you think ought to actively impress the province for  
16 assistance?

17 MR. WILTON-CLARK: I might say, sir, whether  
18 you agree with the way I put things or not, please believe  
19 I am sincere.

20 THE CHAIRMAN: I know you are.

21 MR. WILTON-CLARK: I cannot agree with this,  
22 any more than I can see why Alberta, where we are today,  
23 should pay the shot for supporting the automobile  
24 industry in Ontario, or pay the shot for wheat coming  
25 out of Manitoba. It is a national thing.

26 THE CHAIRMAN: What you are really advocating  
27 is a high duty on coal from the United States.

28 MR. WILTON-CLARK: I do not.

29 THE CHAIRMAN: That is the alternative, the  
30 converse of what you are saying. You are speaking about  
the tariff on automobiles.





1  
2 MR. WILTON-CLARK: Yes.

3 THE CHAIRMAN: I am speaking about the tariff  
4 on coal.

5 MR. WILTON-CLARK: But I am not.

6 THE CHAIRMAN: What has that to do with Alberta  
7 oil and gas which is putting you out of business?

8 MR. WILTON-CLARK: Alberta oil and gas is not  
9 putting us out of business one hundred per cent. We told  
10 you we believed that if we can mine coal to a limited  
11 extent in the summertime -

12 THE CHAIRMAN: I appreciate that.

13 MR. WILTON-CLARK: We can look after our own  
14 market.

15 THE CHAIRMAN: May I ask you where your con-  
16 suming centres are? Where do you sell them?

17 MR. WILTON-CLARK: As of last year, sir?

18 THE CHAIRMAN: Is that in your brief?

19 MR. WILTON-CLARK: Yes, page 12.

20 THE CHAIRMAN: Yes, you gave it for each province.

21 MR. WILTON-CLARK: That is right.

22 THE CHAIRMAN: I mean the amount of consumption,  
23 the nature of the purchases, the business of the pur-  
24 chaser or whatever it may be.

25 MR. WILTON-CLARK: Domestic use, sir, by that  
26 I mean house heating and space heating.

27 THE CHAIRMAN: Is it substantially all that?

28 MR. WILTON-CLARK: Yes.

29 THE CHAIRMAN: That is what I wanted to get,  
30 some idea of what kind of consumption is made of your  
coal.





1  
2 MR. WILTON-CLARK: Right, except the resultant  
3 slack which is pointed out here as almost entirely used  
4 in thermal power plants, both in Saskatchewan and, to  
5 a lesser extent, in Alberta.

6 THE CHAIRMAN: That is about 100,000 tons?

7 MR. WILTON-CLARK: That is right.

8 THE CHAIRMAN: What percentage of that is in  
9 Alberta?

10 MR. WILTON-CLARK: Might I refer to  
11 Mr. McMullen? Mr. McMullen says without hedging that  
12 it is now approaching 50 per cent in Alberta and 50 per  
13 cent in Saskatchewan.

14 THE CHAIRMAN: Is it one large industry or a  
15 number of smaller ones?

16 MR. McMULLEN: Saskatchewan Power Corporation  
17 in Saskatoon, and the Canadian Utilities in Drumheller,  
18 plus one penitentiary.

19 THE CHAIRMAN: So there are about three pur-  
20 chasers of that 100,000?

21 MR. McMULLEN: Yes.

22 THE CHAIRMAN: That is what I would like to  
23 get. How your market is distributed, and the rest is  
24 used in homes?

25 MR. McMULLEN: Yes.

26 MR. WILTON-CLARK: Homes and apartments.

27 THE CHAIRMAN: Yes, you define domestic.  
28 Probably the largest single amount is around Saskatoon.

29 MR. McMULLEN: Not now. It is mainly rural  
30 areas now.

THE CHAIRMAN: Where the gas does not reach?







1  
2 MR. McMULLEN: That is right.

3 THE CHAIRMAN: So gas is playing some part?

4 MR. McMULLEN: Yes, it is tremendous, but we  
5 feel there is still a rural market left.

6 THE CHAIRMAN: How long would you judge that  
7 likely to continue?

8 MR. McMULLEN: Many years.

9 THE CHAIRMAN: Because of the unlikelihood  
10 of piping gas to the rural communities?

11 MR. McMULLEN: That is right.

12 THE CHAIRMAN: And I suppose the farmers  
13 bring in their trucks to some centre?

14 MR. McMULLEN: They bring it in mainly to  
15 elevators.

16 THE CHAIRMAN: You ship it by rail and have  
17 your coal bins near the elevator?

18 MR. McMULLEN: That is right, sir.

19 THE CHAIRMAN: I should have asked you whether  
20 you have any trouble with oil competition? I suppose  
21 oil is more accessible to those rural districts than  
22 gas?

23 MR. McMULLEN: What we find is a gas pipeline  
24 will go into a town or city and there will be the odd  
25 oil burner there that will be sold at a very minimum  
26 price, -- I have heard from \$25.00 up, -- and  
27 they are bought by the farmers in the surrounding  
28 area.

29 THE CHAIRMAN: That is the oil burner?

30 MR. McMULLEN: That is the oil burner, and the





1  
2 farmer burns oil instead of the coal he would have burned.

3 THE CHAIRMAN: So oil is doing some of the  
4 dislocation too?

5 MR. McMULLEN: Yes, sir.

6 THE CHAIRMAN: That is the experience in the  
7 east, the oil is displacing the coal, and I was rather  
8 surprised to hear it said that oil was playing very  
9 little part in domestic heating.

10 MR. McMULLEN: It is in the rural areas.

11 THE CHAIRMAN: So you are, as they are every-  
12 where else, up against the very serious competition of  
13 both oil and gas?

14 MR. McMULLEN: That is right.

15 THE CHAIRMAN: I suppose you have conducted an  
16 aggressive campaign to keep your product being used?

17 MR. McMULLEN: As much as we could, sir,  
18 with the finances we had.

19 THE CHAIRMAN: It looks as if you are losing.  
20 February last you sent only 32,518 tons. Was there any  
21 special reason for that?

22 MR. McMULLEN: Some of it is dependent upon the  
23 weather.

24 THE CHAIRMAN: I was wondering whether the  
25 weather affected this substantially.

26 MR. McMULLEN: Our domestic coal sales are  
27 very dependent upon the weather.

28 THE CHAIRMAN: How was the weather in February  
29 here?

30 MR. McMULLEN: Quite mild.

THE CHAIRMAN: Do you think that accounts at all







1  
2 for this drop from 55 to 32?

3 MR. McMULLEN: It accounts for some of it,  
4 not all. Some is lost.

5 THE CHAIRMAN: So that may continue gradually.  
6 You may lose in the same way, from 55 to 32, or if you  
7 say half of that is due to the weather, you have lost  
8 11,000 tons a month. In May, 58-59, you lost from  
9 21 to 12, that is 9,000 tons. You did gain in August.  
10 You lost in October and December.

11 How was December last? Was that a hard month?

12 MR. McMULLEN: I believe there were two or  
13 three idle days from the lack of orders between Christmas  
14 and New Year's.

15 THE CHAIRMAN: What was that?

16 MR. McMULLEN: Idle days. There were not  
17 enough orders for the mines to run.

18 MR. WILTON-CLARK: Mr. Commissioner, at the  
19 bottom of page 9, the last sentence says,

20 "Also, since the war, competitive fuels have come  
21 into the picture, namely oil, gas, rural electric  
22 power, and competing strip mined coals."

23 While of course as you know, sir, we were not  
24 thinking of rural electric power in terms of supplying  
25 heat, it is a fact that now electric power is available.

26 THE CHAIRMAN: I know.

27 MR. WILTON-CLARK: That makes the automatic  
28 combustion of oil very suitable.

29 THE CHAIRMAN: Yes, there is no doubt that  
30 you are not going to get rid of that competition.

MR. WILTON-CLARK: No.





1  
2 THE CHAIRMAN: Nor with gas. What do you  
3 think of this struggle between coal and gas and oil for  
4 domestic purposes? Do you think you can hold up to it?

5 MR. WILTON-CLARK: I might as well face it.  
6 I cannot say my figures are correct, I am just going to  
7 say what I think is the principle, that in western Canada  
8 wherever you have a community of 1000 people or more,  
9 that you are going to end up by piping natural gas into  
10 that community. But if you have a community of 5 or  
11 20 people, or isolated farm houses, it is going to be  
12 an uneconomic effort to ever pipe what is admittedly  
13 a convenience fuel to them.

14 THE CHAIRMAN: Yes, I quite agree with you.

15 MR. WILTON-CLARK: So this covers a wide range  
16 of effort, so much so that the Drumheller operators  
17 feel that they can maintain a minimum market of half  
18 a million tons and take their own chances on growing.

19 THE CHAIRMAN: There were four mines operating  
20 five years ago.

21 MR. WILTON-CLARK: No, sir. It is listed in  
22 the brief for you. There are four mines today, one year  
23 ago today there were six mines.

24 THE CHAIRMAN: Five years ago there were six.

25 MR. WILTON-CLARK: No, one year ago there were  
26 six.

27 THE CHAIRMAN: Were there six five years ago?

28 MR. WILTON-CLARK: I do not know. I can look  
29 it up.  
30





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4 Mr. Chairman, I am just getting beyond the  
5 time of the closing. Number of mines 59 - you  
6 will take the figure of what, sir, 1954?

7 THE CHAIRMAN: What page?

8 MR. WILTON-CLARK: Page 8. Now, I want to  
9 make this explanation to you, sir, so there is nothing  
10 misunderstood: The major mines, the four today that I  
11 represent, I said constitute or produce more than  
12 95 per cent of the coal out of that valley. There are  
13 little tiny -

14 THE CHAIRMAN: I thought you said two of the  
15 larger ones had closed.

16 MR. WILTON-CLARK: That is right, last year.

17 THE CHAIRMAN: Last year?

18 MR. WILTON-CLARK: Yes.

19 THE CHAIRMAN: That is what I am getting at.  
20 You had four main mines?

21 MR. WILTON-CLARK: Yes.

22 THE CHAIRMAN: They supplied 95 per cent?

23 MR. WILTON-CLARK: That is right.

24 THE CHAIRMAN: Last year two of them were  
25 closed?

26 MR. WILTON-CLARK: No. There were six last  
27 year. There are four remaining.

28 THE CHAIRMAN: All right then two of them.  
29 Then six gave the same per cent of about 95 per cent of  
30 the total?

MR. WILTON-CLARK: Plus 95, yes, sir.







1  
2 THE CHAIRMAN: Were they of the same magnitude  
3 as the four?

4 MR. WILTON-CLARK: Yes.

5 THE CHAIRMAN: So you have one-third of the  
6 mining closed? Two mines out of six.

7 MR. WILTON-CLARK: In one year.

8 THE CHAIRMAN: In one year. What was the result?  
9 What is going to be the effect upon those two mines now?  
10 Are they written off for eternity?

11 MR. WILTON-CLARK: Yes, sir.

12 THE CHAIRMAN: You think they are?

13 MR. WILTON-CLARK: Yes.

14 THE CHAIRMAN: How long had they been operated?

15 MR. WILTON-CLARK: I will refer that question  
16 to Mr. McMullen.

17 THE CHAIRMAN: Roughly.

18 MR. McMULLEN: Midland was going since 1912,  
19 sir. The other was about 1935.

20 THE CHAIRMAN: How low had you got in your  
21 mining? What level had you reached?

22 MR. McMULLEN: One level seam.

23 THE CHAIRMAN: Just a level seam?

24 MR. McMULLEN: We had originally in 1911 to  
25 1915 what was called the upper seams and then they  
26 went down to the lower seam.

27 THE CHAIRMAN: What is the depth of the lower  
28 seam?

29 MR. McMULLEN: 148 to 50 feet.

30 THE CHAIRMAN: That is nothing at all.

MR. McMULLEN: That goes down to the bottom of





1  
2 the valley which is 700 feet.

3 THE CHAIRMAN: What is the topography of the  
4 overlay of the land surface? Of the land overlying this  
5 seam? Is it level?

6 MR. McMULLEN: More or less level.

7 THE CHAIRMAN: More or less level?

8 MR. McMULLEN: Yes.

9 THE CHAIRMAN: So you have a prairie tableland  
there?

10 MR. McMULLEN: That is right.

11 THE CHAIRMAN: And 150 feet beneath that -

12 MR. McMULLEN: No, sir, 700 feet we go down.  
13 There is a valley like this (indicating) and the tableland  
14 is up here (indicating). We mine from the bottom of the  
15 valley.

16 THE CHAIRMAN: Is that valley flat?

17 MR. McMULLEN: No, sir, just a river way.

18 THE CHAIRMAN: What is the greatest depth from  
the surface of any part of that land to the seam?

19 MR. McMULLEN: 700 feet.

20 THE CHAIRMAN: Which is not very much in mining.  
21 is it?

22 MR. McMULLEN: It is in western mining, sir.

23 THE CHAIRMAN: Because I was down over 2,000  
24 feet myself. You think that from the lay of the land  
25 there that it is impossible now to reach any of that seam  
that extends indefinitely?

26 MR. McMULLEN: You would not be able to get  
27 anywhere close to those mines with the development work  
28 of those mines. You would have to start other mines.

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THE CHAIRMAN: Other mines at what seam?

MR. McMULLEN: The same seam.

THE CHAIRMAN: That is what I am trying to ask.

MR. McMULLEN: But you would lose all the development work.

THE CHAIRMAN: I quite agree you would. I am not suggesting you had to make use of the existing works. I am asking you if you could get at that seam from another quarter with a new mining entrance, and a new layout.

MR. McMULLEN: You could, sir, but the main location of the mines up there today are close to the railways. You would have to go down through the prairie level. That would be a 700 foot shaft instead of 140 so you may have to build a railroad for several miles to get down to the area.

THE CHAIRMAN: But you can get at it?

MR. McMULLEN: You can with a lot of expense.

THE CHAIRMAN: Oh, we are not concerned with expense in this.

MR. McMULLEN: Cost you \$30.00 a ton to get that out today.

THE CHAIRMAN: I see what the situation is. Any questions, Mr. Gunn?

MR. GUNN: Mr. Clark, of these four companies that you are representing, have they made any representations to the provincial government for assistance of any kind, to your knowledge?

MR. WILTON-CLARK: Not in any direct manner, sir.





1  
2 MR. GUNN: In what way did they, then?

3 MR. WILTON-CLARK: Without wishing to evade  
4 you in any way, may I pass that question to Mr. McMullen  
5 who is more up to date on that.

6 MR. McMULLEN: There was representation made  
7 when they cut the royalty down; representations made  
8 when they cut the royalties and rentals; cut them one  
9 time.

10 MR. GUNN: That is the only assistance you had?

11 MR. McMULLEN: We have been up there several  
12 times like for the Research Council, getting the work  
13 of the Research Council. I can remember when special  
14 taxation for advertising coal and I believe there has  
15 been, over the years, quite a few representations made.

16 MR. GUNN: But the principal one again was the  
17 cutting down of royalties?

18 MR. McMULLEN: Well, they did help us with our  
19 coal utilization council The Research Council subscribed  
20 to that and helped us considerably. That was an effort  
21 to merchandise coal and coal burning equipment.

22 MR. GUNN: Has that been done recently or is  
23 that past history?

24 MR. McMULLEN: That was done within the last  
25 six years.

26 MR. GUNN: Mr. Clark, I take it on page 16 of  
27 your brief which is Exhibit 47:

28 "To ensure a continuing of the mines in this field,  
29 the following proposals are made, details of which  
30 could be worked out between government and manage-  
ment."





1  
2 From your remarks I take it that the government you mean  
3 there is the federal government and not provincial?

4 MR. WILTON-CLARK: At this juncture, yes, sir.

5 MR. GUNN: What juncture would it be, then, when  
6 it would be, say the provincial?

7 MR. WILTON-CLARK: If in turn the federal govern-  
8 ment were able to, or if the industry for that matter,  
9 were able to have the provincial government collaborate.

10 MR. GUNN: Thank you.

11 THE CHAIRMAN: Mr. Wilton-Clark, may I just ask  
12 you one more question? When those two were closed last  
13 year, what was the effect upon - how many men were dis-  
14 placed?

15 MR. WILTON-CLARK: I will have that figure for  
16 you, sir. Again I must ask Mr. McMullen who is living  
17 with the thing.

18 THE CHAIRMAN: Just roughly.

19 MR. WILTON-CLARK: I am informed, sir, by  
20 the President of the D. C. O. A. the order of 330 men  
21 were displaced when those two mines closed down last  
22 year.

23 THE CHAIRMAN: What became of them?

24 MR. WILTON-CLARK: I have got that answer.  
25 Relatively few were absorbed by the other mining operations  
26 whose market, of course, immediately went up with the  
27 going out of these two mines. Some went on retirement  
28 and called it a day, and others moved away from the  
29 city or found other jobs.

30 THE CHAIRMAN: What is the population of  
Drumheller today, approximately?







1  
2 MR. WILTON-CLARK: I would think offhand  
3 about 2,000, but His Worship the Mayor of Drumheller  
4 is here today, and I wish you would ask him.

5 MR. MAYOR: Twenty-seven hundred in  
6 the city proper, and approximately 6,000 in the L.I.D.

7 THE CHAIRMAN: I suppose, Mr. Wilton-Clark,  
8 you are familiar with the fact that all over the western  
9 world mines are being closed. Have any, to your knowledge,  
10 been kept alive by the government for the purpose you  
11 have mentioned?

12 MR. WILTON-CLARK: Well, I cannot say to my  
13 knowledge, but I certainly wonder about Nova Scotia, sir.

14 THE CHAIRMAN: I am not speaking about Canada.  
15 That is a question we are considering, but I was wondering  
16 if you were familiar with the closures of many mines in  
17 the United States?

18 MR. WILTON-CLARK: No, not to the point of being  
19 able to answer that question about American production.

20 THE CHAIRMAN: Do you know if any government  
21 in the United States is furnishing subsidies for any  
22 coal industry?

23 MR. WILTON-CLARK: No, I cannot answer that  
24 question.

25 THE CHAIRMAN: I do not mean to imply that  
26 that is the proper principle to follow at all. I am  
27 just ascertaining the facts. My information is that  
28 such a thing is unknown and probably would be looked  
29 upon as a misapplication of tax monies if any such  
30 thing were attempted.

MR. WILTON-CLARK: May I in turn, sir, make





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what I hope is a constructive suggestion?

THE CHAIRMAN: Certainly.

MR. WILTON-CLARK: Is it not factual that the mining industry in Great Britain and Holland are nationalized and kept open, whether they are economical or not?

THE CHAIRMAN: Do you think that that is so? Do you think that the English mines are being kept up when they are completely non-economic, except for such period as will enable new industries to arise and the men placed elsewhere, only in the interests of the miners?

MR. WILTON-CLARK: Oh, yes, I am quite convinced of that.

THE CHAIRMAN: There is no other purpose?

MR. WILTON-CLARK: That is right.

THE CHAIRMAN: Well, thank you, gentlemen, for this submission.

THE SECRETARY: Mr. Commissioner, I would like to introduce Mr. W. J. Blackstock who will present a brief on behalf of the Alberta Reclamation Association. This brief becomes Exhibit No. 48.

---EXHIBIT NO. 48: Submission of the Alberta Reclamation Association.







SUBMISSION OF  
THE ALBERTA RECLAMATION ASSOCIATION

---

Appearances:

Mr. W. J. Blackstock, Secretary.

---

MR. BLACKSTOCK: Mr. Chairman, the submission  
of the Alberta Reclamation Association.

1. INTRODUCTION:

The Alberta Reclamation Association is comprised  
of a number of strip coal mining companies acting together  
to further the interests of the coal mining industry in  
Alberta. The active members of the association are as  
follows:

Alberta Coal Limited

Alberta Coal Sales Limited

Battle River Coal Company Limited

Black Nugget Coal Co. Ltd.

Camrose Collieries Ltd.

Forestburg Collieries Ltd.

Kleenbirn Collieries Limited

Western Dominion Coal Mines Ltd.

They are all producing coal by strip mine  
methods.

It is not the intention of the association to  
take up the valuable time of the Commission by repeating  
at great length the many arguments and submissions which  
have been or will be presented to the Commission, but





1  
2 simply to set out as briefly as possible what the assoc-  
3 iation feels to be the main problems and contentions of  
4 its members that should, it is submitted, be considered  
5 by the Commission in its deliberations.

6 2. GENERAL COMMENTS:

7 It is a well-known fact that the sub-bituminous  
8 coal industry in western Canada is in a depressed condition  
9 with the production of sub-bituminous coals being only  
10 54 per cent of the 1945 volume (see appendix "B"). Com-  
11 petitive fuels have largely taken over the domestic  
12 markets, formerly enjoyed almost exclusively by coal, and  
13 have made great inroads into the industrial markets.  
14 The selling price of strip-mined coal at the mines has  
15 decreased in order to meet prices of competitive fuels  
16 and maintain sales volume while costs have remained almost  
17 constant. Profits have consequently decreased by 50 per  
18 cent in the last three years as shown in appendix "A".  
19 However, in spite of this, the cost of coal to the con-  
20 sumer has increased substantially, due to the increased  
21 cost of transportation through higher freight rates.

22 3. SUBMISSIONS:

23 (A) Government Assistance

24 The natural consumer of Alberta sub-bituminous  
25 coals is the industrial user in western Canada and, to  
26 a lesser extent, eastern Canada. In order to secure and  
27 hold this market in the face of rising transportation  
28 costs, it is respectfully submitted that it will be  
29 necessary for the government of Canada to facilitate the  
30 movement of this coal to such markets by providing some  
form of assistance, such as subvention. The main purpose







1  
2 of such assistance would be to maintain an active coal  
3 mining industry in western Canada which will be compet-  
4 itive with other fuels. In the near future, it is  
5 expected that the gas and oil suppliers will forsake these  
6 industrial users for more lucrative export markets or  
7 increase their prices. The coal industry, if granted  
8 the necessary assistance at the present time, will be in  
9 a position to increase its production and continuously  
10 supply the cheap fuel requisite to the supply of energy  
11 for industry.

12 It is also submitted that the present form of  
13 assistance should be maintained for coal moving to  
14 foreign markets.

15 (B) Federal Buildings

16 It is respectfully submitted that the western  
17 Canada coal industry should have the opportunity of  
18 supplying the federal government buildings with fuel,  
19 particularly in the west. Every effort should be exerted  
20 to convert all such buildings to coal, to maintain the use  
21 of coal in many government buildings where it is presently  
22 being used and to provide for the installation of coal-  
23 burning equipment in all new government buildings. The  
24 additional coal tonnage thus consumed would assist in  
25 maintaining the production of coal at a higher rate,  
26 preserving some coal mining facilities to serve as a basis  
27 for expanding this industry in time of national crisis.

28 (C) Coal Policy of the Federal Government

29 It is respectfully submitted that the federal  
30 government should immediately establish an all-embracing  
long-term definite policy with respect to coal. The







1  
2 present coal policy is, at best, very indefinite depending  
3 largely on the annual grants by parliament. Subvention,  
4 where it applies, is granted on a year-to-year basis  
5 and because of this, a coal producer cannot afford to  
6 spend large amounts of money establishing a market for  
7 his coal only to find that the following year the sub-  
8 vention has been withdrawn and he can no longer supply  
9 the coal at his quoted price. Customers using coal insist  
10 on a continuing reliable supply at a quoted price. They  
11 would rather not use a specific brand of coal if the price  
12 and delivery are questionable.

13 A definite policy with respect to the use of  
14 fuels for the generation of electrical energy should be  
15 laid down. The existing low cost gas supplied on an  
16 interruptible basis should not be allowed to displace  
17 coal. This forces the coal mines to close and the  
18 public indirectly to suffer higher power rates due to  
19 increased gas prices arising from the lack of competition.

20 (D) Similar Treatment of Coal Mines

21 The coal mines of western Canada produce bitu-  
22 minous and sub-bituminous coal by both underground mining  
23 and strip mining methods.

24 However, group V - those are the coals that  
25 we produce - coals do not receive any assistance as do  
26 coals in other groups. It is respectfully submitted that  
27 all coals in all groups should receive the same treatment  
28 regarding assistance as provided by the federal government.  
29 See appendix "C" and "D" attached covering coal group  
30 classification and areas as set out in the Coal Sales Act  
of the province of Alberta.





1  
2 (E) Employment

3 The coal mining industry provides a large amount  
4 of work the year round. Its high production period is  
5 in the wintertime and, as such, supplies jobs at a time  
6 when a good part of the Canadian labour force is idle.  
7 Hence it tends to reduce the winter unemployment problem  
8 and consequently, every effort should be made by all con-  
9 cerned to keep the industry thriving.

10 (F) Research

11 The coal producers of western Canada are extremely  
12 interested in finding new uses for coal and its by-  
13 products with the resultant development of new markets for  
14 their coal. This, however, can only be achieved as the  
15 result of an active and intensive basic research program  
16 which the industry, in its present depressed condition,  
17 is unable to support. The federal and provincial govern-  
18 ments should expand their existing research programs with  
19 a view to finding more uses for coal and its by-products;  
20 producing better coal-burning and cleaning equipment, and  
21 learning more about the combustion of sub-bituminous coals  
22 in large boilers for thermal electric plants.

23 (G) Merits of Strip-Mined Coal

24 There is a popular misconception that coal  
25 produced by strip mining methods does not satisfy the  
26 requirements of the coal consumer.

27 The sub-bituminous coal produced by underground  
28 and strip mines in Alberta has decreased from 3,200,485  
29 tons in 1945 to 1,734,698 tons in 1959. Strip mined  
30 sub-bituminous coal amounted to 833,129 tons, or 26 per  
cent of the 1945 production, and increased until it was







1  
2 1,056,911 tons, or 61 per cent of the tonnage produced  
3 in 1959 (see appendix "B").

4 It is therefore respectfully submitted that coal  
5 produced by strip mining methods (1) should be treated in  
6 a similar and equal manner to coal produced by other  
7 methods whether in eastern or western Canada, (2) shows a  
8 popular demand for good coal at a reasonable price, and  
9 (3) the quality of such coal satisfies a large percentage  
10 of the coal consuming public.

11 All of which is respectfully submitted.

12 THE ALBERTA RECLAMATION ASSOCIATION

13 Per: W. J. Blackstock

14 Secretary.

15 THE CHAIRMAN: Just at the outset, is there  
16 any distinction in the subsidy between strip mined coal  
17 and underground coal?

18 MR. BLACKSTOCK: Yes, sir.

19 THE CHAIRMAN: In what way?

20 MR. BLACKSTOCK: At the present time coal  
21 produced by strip mining methods, or the group V coals,  
22 do not have any subvention whatsoever. There is no  
23 assistance.

24 THE CHAIRMAN: What do you mean, to any points  
25 in western Ontario?

26 MR. BLACKSTOCK: To any points? There is no  
27 assistance.

28 THE CHAIRMAN: Are you sure? Because so far  
29 as my information goes there is no distinction at all.

30 MR. BLACKSTOCK: The group V coals in Alberta





APPENDIX "A"

Alberta Sub-Bituminous Strip Coal Mines Operating Costs and  
Revenues Per Net Ton of Marketable Coal Produced 1956-1958 Inclusive

ALBERTA DOMESTIC STRIPPING

	1956		1957		1958	
	Cost %	\$/ton	Cost %	\$/ton	Cost %	\$/ton
<b>OPERATING COSTS</b>						
Labour	34.8	1.15	33.4	1.16	33.4	1.09
Welfare Fund	.2	.01	.2	.01	.2	.01
Vacation Pay	.5	.02	.5	.02	.5	.02
Workmen's Compensation	.4	.01	.4	.01	.4	.01
Maintenance, Repairs and Supplies	13.2	.44	11.0	.38	8.8	.28
Total Mine Costs	49.1	1.63	45.5	1.58	43.3	1.41
Taxes and Insurance	2.6	.09	2.9	.10	3.6	.12
Power	1.7	.06	1.9	.06	2.5	.08
Royalties	4.1	.13	3.8	.13	3.7	.12
Administration and Supervision	5.1	.17	6.9	.24	8.3	.27
Miscellaneous Expense	.5	.01	1.0	.04	1.2	.04
Total Cost to Tipple	63.1	2.09	62.0	2.13	62.6	2.04
Tipple & Washing Plant	6.9	.23	8.6	.30	8.2	.27
Total Cost FOB Cars	70.0	2.32	70.6	2.45	70.8	2.31
Depreciation	21.5	.72	20.3	.71	20.5	.67
Depletion	2.5	.08	2.3	.08	2.4	.08
Bond & General Interest	1.2	.04	1.2	.04	1.1	.03
Distribution	4.8	.16	5.6	.19	5.2	.17
Total Costs	100.0	3.32	100.0	3.47	100.0	3.26
<b>REVENUES</b>						
Coal Sales		3.17		3.19		3.04
Miscellaneous Income		.21		.32		.25
Total Income		3.38		3.51		3.29
<b>PROFIT (P) OR LOSS (L)</b>						
Before Income Tax		(P) .06		(P) .04		(P) .03
<b>PRODUCTION</b>						
Coal Produced Net Tons	1,304,698		1,117,945		928,244	
Tons Produced Per Man Day	14.53		14.46		14.35	

The above information has been taken from the 1956, 1957 and 1958 Annual Reports of The Dominion Coal Board, which are the only reports available giving separate breakdowns of cost and revenue for Alberta strip mined sub-bituminous coals.





COMPARISON OF STRIP AND UNDERGROUND COAL PRODUCTION IN ALBERTA

FOR THE CALENDAR YEARS 1945 - 1959, INCLUSIVE

	Bituminous Strip	Sub- Bituminous Strip	Total Strip	Bituminous Underground	Sub- Bituminous Underground	Total Underground	Total Production
1945	491,736	833,129	1,324,865	4,109,027	2,367,356	6,476,383	7,801,248
1946	991,335	831,505	1,822,840	4,398,261	2,603,354	7,001,615	8,824,455
1947	1,170,875	709,704	1,880,579	3,666,501	2,527,516	6,194,017	8,074,596
1948	1,709,039	1,007,042	2,716,081	3,211,757	2,183,175	5,394,932	8,111,013
1949	1,914,463	1,027,493	2,941,956	3,580,864	2,094,163	5,675,027	8,616,983
1950	1,865,120	1,233,234	3,098,354	2,927,900	2,091,952	5,019,852	8,118,206
1951	1,708,256	1,120,858	2,829,114	2,951,033	1,881,129	4,832,162	7,661,276
1952	1,455,453	1,233,056	2,688,509	2,923,169	1,582,794	4,505,963	7,194,472
1953	1,288,118	1,247,075	2,535,193	2,229,381	1,152,849	3,382,230	5,917,423
1954	851,381	1,278,186	2,129,567	1,550,804	1,178,765	2,729,569	4,859,136
1955	806,705	1,297,530	2,104,235	1,308,187	1,044,156	2,352,343	4,456,578
1956	747,018	1,257,616	2,004,634	1,317,705	1,007,300	2,325,005	4,329,639
1957	357,535	1,027,337	1,384,872	908,309	862,173	1,770,482	3,155,354
1958	248,969	997,608	1,246,577	585,287	688,075	1,273,362	2,519,939
1959	157,442	1,056,911	1,214,353	657,371	677,787	1,335,164	2,549,517
	15,763,445	16,158,284	31,921,729	36,325,562	23,942,544	60,268,106	92,189,835

The difference in coal production shown in Appendix "A" and Appendix "B" for the same year is due to the former being based on the Financial Year and the latter on the Calendar Year.







APPENDIX "C"

A GENERAL CLASSIFICATION OF ALBERTA COALS BY GROUPS

Group I

Low volatile, non-caking and caking bituminous coals.

Range of Typical Analyses: Moisture 1 to 2%, Ash 8 to 10%, Volatile matter 10 to 16%, Fixed Carbon 73 to 80%, Heat Value 14,000 to 14,200 B.t.u. per pound.

Group II

Medium and High volatile caking bituminous coals.

Range of Typical Analyses: Moisture 1 to 4%, Ash 8 to 15%, Volatile Matter 20 to 36%, Fixed Carbon 46 to 65%, Heat Value 12,000 to 13,500 B.t.u. per pound.

Group III

High Volatile C bituminous non-caking coals.

Range of Typical Analyses: Moisture 7 to 12%, Ash 7 to 13%, Volatile Matter 32 to 35%, Fixed Carbon 41 to 50%, Heat Value 10,400 to 11,900 B.t.u. per pound.

Group IV

Sub-bituminous A and B non-caking Coals.

Range of Typical Analyses: Moisture 16 to 25%, Ash 6 to 12%, Volatile Matter 26 to 32%, Fixed Carbon 38 to 45%, Heat Value 8,500 to 10,000 B.t.u. per pound.

Group V

Sub-bituminous B and C non-caking coals.

Range of Typical Analyses: Moisture 24 to 30%, Ash 5 to 9%, Volatile Matter 27 to 30%, Fixed Carbon 35 to 40%, Heat Value 7,700 to 9,000 B.t.u. per pound.





APPENDIX "D"

Group I

Coal Areas:		
Cascade	-	Low volatile, bituminous; also semi-anthracite
Nordeg	-	Low volatile bituminous.

Group II

Coal Areas:		
Crowsnest	-	Medium volatile bituminous; also high volatile A bituminous.
Mountain Park-		High volatile A bituminous and medium volatile bituminous.

Group III

Coal Areas:		
Coalspur	-	High volatile C bituminous
Halcourt	-	High volatile C bituminous; also sub-bituminous B
Lethbridge	-	High volatile C bituminous
Morley	-	High volatile B bituminous
Pekisko	-	High volatile B bituminous
Pincher	-	High volatile B bituminous; also high volatile A and high volatile C bituminous.
Prairie Creek-		High volatile B and high volatile C bituminous
Saunders	-	High volatile C bituminous

Group IV

Coal Areas:		
Ardley	-	Sub-bituminous B
Big Valley	-	Sub-bituminous B
Brooks	-	Sub-bituminous B
Carbon	-	Sub-bituminous B; also sub-bituminous A
Champion	-	Sub-bituminous A; also sub-bituminous B
Drumheller	-	Sub-bituminous B
Edmonton	-	Sub-bituminous B
Gleichen	-	Sub-bituminous B
Milk River	-	Sub-bituminous A and Sub-bituminous B
Pembina	-	Sub-bituminous B
Taber	-	Sub-bituminous A and Sub-bituminous B
Wetaskiwin	-	Sub-bituminous B
Whitecourt	-	Sub-bituminous B

Group V

Coal Areas:		
Camrose	-	Sub-bituminous C; also sub-bituminous B
Castor	-	Sub-bituminous C; also sub-bituminous B
Edmonton	-	Sub-bituminous C
Pakowki	-	Sub-bituminous C and lignite
Redcliff	-	Sub-bituminous C
Rochester	-	Sub-bituminous C
Sheerness	-	Sub-bituminous C
Tofield	-	Sub-bituminous C
Westlock	-	Sub-bituminous C







1  
2 are produced by strip mining methods.

3 THE CHAIRMAN: I don't quite understand what  
4 you mean because there is nothing in the Order in Council  
5 furnishing a subsidy that makes any distinction in the  
6 manner in which coal is mined.





1  
2 MR. BLACKSTOCK: That is correct, but the  
3 coals that are mined by the strip mining methods are  
4 in the group V classification which is omitted from any  
5 assistance.

6 THE CHAIRMAN: Where is there any reference in  
7 the Order in Council of group V coal? Have you seen a  
8 copy of the Order in Council?

9 MR. BLACKSTOCK: Yes.

10 THE CHAIRMAN: And you say it does that?

11 MR. BLACKSTOCK: It does not specifically state  
12 that, but coal of that quality does not receive that  
13 assistance.

14 THE CHAIRMAN: If it does not state it in  
15 there, how can there be any distinction made? I am just  
16 looking for information because this is the first  
17 intimation I have had of that. It may be that you cannot  
18 ship to any market to the establishment of which a sub-  
19 sidy is paid. You cannot, for instance, ship to a pulp  
20 and paper mill in western Ontario, say Lake of the Woods,  
21 can you?

22 MR. BLACKSTOCK: We can ship to it.

23 THE CHAIRMAN: But they won't buy your coal,  
24 because it is too expensive, is that it?

25 MR. BLACKSTOCK: In effect that would be it.

26 THE CHAIRMAN: That is not a discrimination  
27 against your coal.

28 MR. BLACKSTOCK: If we were receiving the same  
29 subvention allowed for other coals in group IV, we could.

30 THE CHAIRMAN: If you could sell to the same  
people that the strip mines sell to, you would get the





1  
2 subvention.

3 MR. BLACKSTOCK: No.

4 THE CHAIRMAN: It just happens that you cannot.

5 MR. BLACKSTOCK: In the event that we can  
6 arrange to sell, and assuming we would get a subvention  
7 similar to that granted for group IV coals, and that a  
8 consumer of coal would buy it at that price, we still  
9 could not get the subvention.

10 THE CHAIRMAN: There is nothing in the Order  
11 in Council dealing with any matter of distinction, at  
12 least I have not seen it.

13 I am sorry, it is in the Order in Council.  
14 My information was not right. "The assistance shall not  
15 apply in respect of any coal mining operation, the coal  
16 of which is classified as group V, or any strip mining  
17 operation, the coal of which is classified as group IV."

18 That is your submission to me, and I do not  
19 yet know just what the effect of it will be, but we  
20 will certainly see.

21 MR. BLACKSTOCK: Yes, sir.

22 THE CHAIRMAN: Could you enter the market for  
23 the sale of coal to one of the pulp mills in the Lake  
24 of the Woods district?

25 MR. BLACKSTOCK: Of course we have never been  
26 in the position to go down and promote that market.

27 THE CHAIRMAN: It was not open to you.

28 MR. BLACKSTOCK: That is right.

29 THE CHAIRMAN: I want to thank you for bringing  
30 it to my attention, because I knew nothing about it. You  
say the industry, if granted the necessary assistance at







1  
2 the present time - how long would you consider that the  
3 present time would last?

4 MR. BLACKSTOCK: It is questionable, but our  
5 thinking is this, that the building up in tonnage of coal  
6 in Alberta, the first people that will feel it will be  
7 the strip mine operators, because they are the people  
8 that are capable of supplying coal that is highly com-  
9 petitive to the existing cost, which they are doing or  
10 will do very shortly.

11 THE CHAIRMAN: I suppose it is impossible  
12 to say how long this period will last, assuming that the  
13 price of oil and gas will go up. Who can say when?

14 MR. BLACKSTOCK: That is correct.

15 THE CHAIRMAN: I notice that you speak about  
16 the federal government buildings. You know that the  
17 federal government has consistently followed the practice  
18 of using Canadian coal within twenty per cent - which is  
19 not more than twenty per cent over other fuels.

20 MR. BLACKSTOCK: Yes, surely.

21 THE CHAIRMAN: Is there any other government  
22 in Canada that has followed that practice?

23 MR. BLACKSTOCK: Not to my knowledge, no. You  
24 are thinking of the provincial government?

25 THE CHAIRMAN: You are a good businessman.  
26 Do you think we would have the government of Canada  
27 supplying these things, and nine or ten other governments  
28 excluding them, particularly when their own interest is  
29 concerned?

30 MR. BLACKSTOCK: I would say no to that.

THE CHAIRMAN: I was just wondering why you





1  
2 emphasized the federal government.

3 MR. BLACKSTOCK: Well, the federal government  
4 for one thing is at the present time converting from  
5 coal to gas in several places.

6 THE CHAIRMAN: The others have never been in it,  
7 the other governments have never been in the practice  
8 of using coal where they could buy cheaper oil.

9 MR. BLACKSTOCK: I cannot speak to my knowledge  
10 in so far as any recent changes in the use of coal in  
11 Alberta by the provincial government is concerned.

12 THE CHAIRMAN: I am just drawing your attention  
13 to the fact that the federal government seems to be the  
14 sort of grandfather for all of us.

15 I think you have stated very fairly when you  
16 say, "Competitive fuels have largely taken over the  
17 domestic markets and have made great inroads into the  
18 industrial markets." That is the real cause, isn't it?

19 MR. BLACKSTOCK: Yes.

20 THE CHAIRMAN: In this province oils and gas  
21 have come from the resources of this province, haven't  
22 they?

23 MR. BLACKSTOCK: Yes.

24 THE CHAIRMAN: So this province by the promotion  
25 and encouragement of the utilization of its own resources  
26 has put some of its mining men on the street. Suppose  
27 this were not a province at all, but a small community  
28 where individuals were individuals, and one person,  
29 as a result of something he had done, caused a great deal  
30 of loss to the rest of the community and then he insisted  
very loudly that the rest of the community or some other







1  
2 community help to repair that damage that he had caused.  
3 What would you do?

4 MR. BLACKSTOCK: I think that the community  
5 that had helped create the problem should be responsible  
6 for helping to restore order.

7 THE CHAIRMAN: It would seem to me to follow  
8 any ordinary logic that we employ in life, that the  
9 cause should look after the damage.

10 You don't seem to be impressed with that cause,  
11 because you are looking to the Dominion Government that  
12 has had nothing to do with this exploitation of Alberta  
13 oil and gas.

14 MR. BLACKSTOCK: I think in the interest of  
15 the people of Canada it should maintain the coal industry  
16 in Alberta.

17 THE CHAIRMAN: Isn't it in the interest of the  
18 province of Alberta?

19 MR. BLACKSTOCK: I cannot say it is.

20 THE CHAIRMAN: Isn't it the primary interest  
21 of the province of Alberta?

22 MR. BLACKSTOCK: I think basically the industry  
23 of western Canada is of more importance to the people of  
24 Canada as a group than the province of Alberta as indivi-  
25 duals, as a province.

26 THE CHAIRMAN: You think that coal mining in  
27 Alberta is of more importance to the Dominion than it is  
28 to the province?

29 MR. BLACKSTOCK: Yes, I do, and it has been  
30 very obvious during the war as an instance. The federal  
government spent substantial sums of money to extend the





1  
2 coal industry here and put a terrific pressure on to do  
3 that.

4 THE CHAIRMAN: That is so. But take times of  
5 peace, what is the interest of the province of Alberta in  
6 its own resources, in its oil?

7 MR. BLACKSTOCK: It should be great, I would  
8 say.

9 THE CHAIRMAN: I should think so. You would  
10 not say that the Dominion interest in oil today is  
11 greater than the interest of Alberta in its own oil?

12 MR. BLACKSTOCK: That is pretty hard to say.

13 THE CHAIRMAN: Nine hundred and fifty million  
14 dollars is somewhat a large amount.

15 MR. BLACKSTOCK: It is substantial. There is  
16 no question about that.

17 THE CHAIRMAN: All I mean is, we are inclined  
18 to look at these matters from a rather one-sided view.  
19 That is all I would suggest, that both governments have  
20 an interest in it, a very serious interest.

21 MR. BLACKSTOCK: We feel that ourselves, and  
22 have set it out in the brief that the provincial  
23 government should assist and should participate in the  
24 assistance.

25 THE CHAIRMAN: You mention the provincial  
26 government on one occasion. You mentioned it regarding  
27 research.

28 MR. BLACKSTOCK: It was implied that it would  
29 be sort of a dual effort.

30 THE CHAIRMAN: I should think so. What puzzles  
me is why in no case is the province ever thought of as a





1  
2 source of help.

3 MR. BLACKSTOCK: Unfortunately for them, I  
4 think the reason is that the need for coal is not in  
5 Alberta, generally speaking.

6 THE CHAIRMAN: No, but your need is.

7 MR. BLACKSTOCK: That is very true.

8 THE CHAIRMAN: But you don't mean to say that  
9 your whole solicitude is in the people of Saskatchewan?

10 MR. BLACKSTOCK: No, I grant you that.

11 THE CHAIRMAN: If it is not there, it must  
12 be here in Alberta, so after all Alberta is most  
13 immediately concerned.

14 MR. BLACKSTOCK: That is true.

15 THE CHAIRMAN: Thank you, Mr. Blackstock.

16 MR. ELLIS: Mr. Commissioner, I would again  
17 like to call upon Mr. W. C. V. Whittaker who will now  
18 present a statement on behalf of the Canadian Institute  
19 of Mining and Metallurgy. This will be recorded as  
20 Exhibit 49.

21 ---EXHIBIT NO. 49: Brief submitted on  
22 behalf of Canadian  
23 Institute of Mining and  
24 Metallurgy.  
25  
26  
27  
28  
29  
30







SUBMISSION OF  
CANADIAN INSTITUTE OF MINING AND METALLURGY

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Appearances:

Mr. W. E. C. Whittaker

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MR. WHITTAKER: On December 3, 1959, Mr. I.C. Rand, The Commissioner, Royal Commission on Coal (1959), invited the Canadian Institute of Mining and Metallurgy to present the views of the organization concerning the Canadian coal industry. The invitation was transmitted to the Coal Division of the Institute which is pleased to take this opportunity to express its views.

HISTORY AND OBJECTIVES OF THE  
CANADIAN INSTITUTE OF MINING AND METALLURGY

In 1898 an earlier association known as the Federated Mining Institute was organized as the Canadian Mining Institute. In 1918, an affiliation was agreed between the Institute and the Mining Society of Nova Scotia, which is the oldest mineral industry society in Canada. In 1920 the name of the Institute was changed from the Canadian Mining Institute to its present form - The Canadian Institute of Mining and Metallurgy.

The Canadian Institute of Mining and Metallurgy serves the mineral industry as an association of professional men. The principal objective is to provide means of communicating results of experience and new ideas that are





1  
2 beneficial to promoting progress in technology. The  
3 regular meetings of the Institute furnish useful forums  
4 for discussion.

#### 5 ORGANIZATION OF THE INSTITUTE

6 Under the patronage of the Governor-General  
7 of Canada, and the Prime Minister of Canada, the Institute  
8 is headed by an annually-elected president, assisted by  
9 six vice-presidents, each of whom represents a geograph-  
10 ical district of Canada. Each such district have five  
11 councillors. A permanent headquarter's staff is located  
12 in Montreal, headed by the Secretary-Treasurer of the  
Institute.

13 Technically, the Institute is divided into  
14 six divisions, namely: The coal, geology, industrial  
15 minerals, metallurgy, metal mining and petroleum and  
16 natural gas divisions. I think it might interest you,  
17 Mr. Chairman, that Dr. Cameron, your colleague, was the  
18 first chairman of the coal division of the C. I. M.

19 Each division is headed by an annually-elected  
20 chairman, whose function is to co-ordinate the efforts of  
21 committees appointed to promote technical studies, and  
22 the preparation of reports for annual meetings of the  
23 Institute. Liaison is encouraged between the six tech-  
nical divisions on studies of common interest.

24 Standing committees of the Institute are  
25 appointed to deal with matters of over-all concern such  
26 as finance, library facilities, publications, enrolments,  
27 education for the mineral industry and awards of Instit-  
ute honours.

28 With regard to co-operation with other technical  
29  
30







1  
2 organizations, an effective liaison had been established  
3 with the American Institute of Mining, Metallurgical and  
4 Petroleum Engineers through interchange of certain  
5 officers of the coal division. The Institute also  
6 maintains close relationship with other Canadian Technical  
7 Societies and appoints representatives to the Commonwealth  
8 Council of Mining and Metallurgical Institutions.

9 COAL DIVISION, CANADIAN INSTITUTE OF MINING AND METALLURGY

10 The coal division was formed in 1944 as one  
11 of the integral technical divisions of the Institute, as  
12 it was thought that the Canadian coal industry would be  
13 better served by an all-embracing group in the light of  
14 the specialized nature of the production and utilization  
15 fields of the coal industry.

16 When the coal division was established, special-  
17 ist committees on mining methods, ventilation, transport-  
18 ation, preparation and legislation were formed for study-  
19 ing technical problems of the industry. In 1950 this  
20 divisional organization was streamlined into two technical  
21 committees, one dealing with current mining developments  
22 in relation to production, and the other with research  
23 in the preparation and utilization fields. The latter  
24 committee has been in existence since the formation of  
25 the division in 1944.

26 The accomplishments of the coal division and  
27 the Mining Society of Nova Scotia reflect the vigor of  
28 the industry and are demonstrated by the number of papers  
29 on coal subjects published in the monthly bulletin  
30 of the Institute and in the yearly transactions. During  
the fifteen year period, 1930 to 1944 inclusive, prior to





1  
2 the formation of the coal division, there were 63 papers  
3 published on coal subjects. From 1945 to date, a total  
4 of 150 papers have been published. Some of the papers  
5 were presented at special symposiums and forums sponsored  
6 by the coal division, such as:-  
7 Domestic Heating Forum. Calgary, October, 1951.  
8 Western Canada and Canadian Energy. Winnipeg, October 1952.  
9 Forum on the Automatic Burning of Coal. Winnipeg, October,  
10 1952.  
11 The Role of Minerals in the Industrialization of Western  
12 Canada. Edmonton, April, 1953.  
13 Problems Relating to Ground Stress. Montreal, April, 1954.  
14 Ground Stress Symposium. Quebec City, April 1956.  
15 Rock Pressure Studies in the Mines at Springhill, N.S.  
16 Presented to Mining Society of Nova Scotia, July 1956.  
17 Joint Solid Fuels Conference of A.S.M.E., A.I.M.E. and  
18 C.I.M. Quebec City, 1957.  
19 Ground Stress Studies in Coal Mines of Western Canada.  
20 Vancouver, April 1958.  
21 Iron and Steel in Western Canada. Edmonton, September 1959.  
22 Forum on Mine Dusts. Winnipeg, September 1959.

#### 23 VIEWS ON THE CANADIAN COAL INDUSTRY

24 It is the considered opinion of the coal  
25 division, C.I.M., that the Canadian coal industry is a  
26 progressive industry, and that the skills of managements  
27 and individual engineers are in no way inferior to those  
28 in other countries. A convenient though approximate way  
29 to judge performance is to compare the average product-  
30 ivities achieved in different coal producing regions  
operating under reasonably comparable conditions. Product-  
ivity is here defined as the number of tons of coal  
produced per man-shift employed and, when comparing







1  
2 different countries, care has been taken to convert metric  
3 and long tons to short tons. By and large, Canadian  
4 underground conditions resemble more closely those of  
5 Europe than they do those of the United States. For-  
6 example, conditions in Nova Scotia can be compared with  
7 those of undersea mining operations in the United King-  
8 dom, and conditions in the western Canadian bituminous mines  
9 are comparable with those of central France. Productivi-  
10 ties in these two European countries are presently about  
11 one-half that of the Nova Scotian average of 2-2/3 tons  
12 per man-shift, and about a third of the average producti-  
13 vity (4 tons) achieved in the western Canadian bituminous  
14 mines.  
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2 It is true that productivities are much higher  
3 in the United States, but underground mining is usually  
4 conducted at shallower depths and on more regular seams  
5 than is the case in Canada. Where mining conditions in  
6 the United States approximate those found in Canada, the  
7 productivity figures in the United States are much  
8 closer to those of the Canadian mines. For example,  
9 the underground operations in the Pennsylvania anthracite  
10 fields have a productivity of about three tons per man-  
11 shift, and in Washington state the productivity is approx-  
12 imately five tons per man-shift. In the case of strip  
13 mining operations, where conditions allow of complete  
14 mechanization, the Canadian and United States productivi-  
15 ties are nearly the same. For instance, the productivity  
16 of the Saskatchewan strip mines is approximately 26 tons  
17 per man-shift, and for Indiana and Illinois it is about  
18 27½ tons.

#### 19 RECOMMENDATIONS

20 The difficulties of the Canadian coal industry  
21 are largely due to economic factors rather than backward-  
22 ness of the industry and, should it go out of existence,  
23 there would be not only regional distress but a tendency  
24 toward rising prices of alternate fuels, particularly  
25 imported coal and oil.

26 The Canadian Institute of Mining and Metallurgy  
27 therefore recommends:

- 28 1. That serious consideration should be given  
29 and a careful examination made of any act or influence  
30 contemplated for introduction into the Canadian coal  
mining industry.





1  
2           2. That research be encouraged, both in private  
3 industry and government laboratories, to provide opportu-  
4 nities for competent engineers and scientists to conduct  
5 research on problems of production, beneficiation and  
6 utilization of Canadian coals. This would also maintain  
7 a nucleus of Canadian skill to deal with the problems of  
8 an industry faced with severe competition from other forms  
9 of energy.

10           3. That some research, at the graduate level  
11 in coal science and technology, be promoted and supported  
12 at Canadian universities by providing grants-in-aid,  
13 administered by the Department of Mines and Technical  
14 Surveys.

15           4. That steps be taken to establish reasonable  
16 co-operation and collaboration with coal research author-  
17 ities in the United States so as to increase the over-all  
18 effort and avoid duplication.

19           THE CHAIRMAN: Thank you, Mr. Whittaker.

20           THE SECRETARY: Mr. Commissioner, I would like  
21 to call upon Mr. Edward Boyd who will present a brief on  
22 behalf of the United Mine Workers of America, District 18.  
23 This brief will become Exhibit No. 50.

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25  
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---EXHIBIT No. 50: Submission of the United  
Mine Workers of America,  
District 18.







SUBMISSION OF  
UNITED MINE WORKERS OF AMERICA  
District 18

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Appearances:

Mr. Edward Boyd, President,  
Mr. William Ure, Secretary-Treasurer

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MR. BOYD: Mr. Commissioner, may I present to you Mr. Ure, who is secretary-treasurer of our district organization.

District 18, United Mine Workers of America, represents the organized mine workers of the provinces of Alberta and British Columbia, and the employees of two mines in Saskatchewan. It was first organized in 1903, and signed its first agreement in that year with the Crow's Nest Pass Coal Company, Limited, at Fernie, British Columbia. In the following years it signed contracts with other coal companies and in 1907 held its first joint conference in the city of Calgary where an agreement was consummated with several coal companies then operating in Alberta and southeastern British Columbia.

At the present time District 18, United Mine Workers of America, is the bargaining agent for all employees of the companies listed below who are operating mines in Alberta, British Columbia and Saskatchewan:  
Canadian Collieries Resources Ltd., Cumberland, B. C.  
Manitoba & Saskatchewan Coal Co. Ltd., Bienfait, Sask.





1  
2 North West Coal Co., Bienfait, Sask.

3 The Coal Operators Association of Western Canada whose  
4 member companies are:

5 Canmore Mines Ltd., Canmore, Alta.

6 Crow's Nest Pass Coal Co. Ltd., Fernie, B. C.  
(Mine at Michel, B.C.)

7 Coleman Collieries Ltd., Coleman, Alta.

8 West Canadian Collieries Ltd.  
(Greenhill Mine at Blairmore, Alta.  
9 Bellevue Mine, Bellevue, Alta.)

10 Lethbridge Collieries Ltd., #10 Mine, Shaughnessy, Alta.

11 The Drumheller Coal Operators Association whose member  
12 companies are:

13 Atlas Coal Co. Ltd., East Coulee, Alta.

14 Amalgamated Coals Ltd., Western Monarch, Alta.

15 Federated Co-operatives Ltd., Drumheller, Alta.  
(Hy-Grade Mine)

16 Red Deer Valley Coal Co. Ltd., Drumheller, Alta.

17  
18 In the year 1946 production had reached its  
19 peak in Alberta, and the decline in production from  
20 1946 to 1958 is shown as follows: (The graph shows the  
21 total production in 1946 of 11,988,224 and in 1958,  
22 5,613,769. The statistics are not available as yet  
23 for 1959 when we prepared this brief, Mr. Commissioner,  
24 but we will give them to you.  
25  
26  
27  
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30





PRODUCTION OF COAL FOR PROVINCES OF  
ALBERTA BRITISH COLUMBIA & SASKATCHEWAN

Year

1946	8,826,311	1,638,424	1,523,489	11,988,224
1947	8,070,430	1,763,899	1,571,149	11,405,478
1948	8,123,255	1,780,334	1,585,843	11,489,432
1949	8,616,855	1,906,963	1,870,487	12,394,305
1950	8,116,220	1,730,445	2,203,223	12,049,888
1951	7,659,329	1,739,412	2,223,318	11,622,059
1952	7,194,757	1,644,250	2,083,465	10,922,472
1953	5,917,474	1,443,006	2,021,304	9,381,784
1954	4,859,049	1,299,510	2,114,932	8,273,491
1955	4,445,279	1,453,881	2,294,987	8,204,147
1956	4,328,787	1,472,519	2,343,136	8,144,442
1957	3,156,546	1,121,430	2,248,776	6,526,752
1958	2,518,118	841,603	2,254,048	5,613,769

Source - Dominion Bureau of Statistics

In the same period of time the following coal companies, with which District 18, United Mine Workers of America, had contracts, closed down:

<u>Location</u>	<u>Coal Company</u>	<u>Date of Mine Closure</u>
Wabumun, Alta.	Lakeside Coals Ltd.	June, 1948
Mountain Park, Alta.	Mountain Park Coals Ltd.	June, 1950
Newcastle, Alta.	Newcastle Collieries	Sept., 1950
Gregg River, Alta.	K-D Collieries Ltd.	May, 1951
Bellevue, Alta.	Hillcrest-Mohawk Coal Co. (Mohawk Mine)	Feb., 1952
Coalspur, Alta.	King Coal & Lumber Co.	Feb., 1952
Saunders, Alta.	Bighorn & Saunders Creek Collieries, Ltd.	April, 1952







<u>Location</u>	<u>Coal Company</u>	<u>Date of Mine Closure</u>
Cadomin, Alta.	Cadomin Coal Co. Ltd.	July, 1952
Kananaskis, Alta.	Kananaskis Coal Co.	Dec., 1952
Three Hills, Alta.	Inland Coal Co. Ltd.	March, 1953
Nanaimo, B. C.	Canadian Collieries (Dunsmuir) Ltd.	Nov., 1953
Princeton, B. C.	Princeton Talameen Coal Co. & Tulameen Collieries	Jan., 1954
Coleman, Alta.	International Coal & Coke Co. Ltd.	March, 1954
Mile 32 (Robb), Alta.	Lakeside Collieries Ltd.	March, 1954
Nordeg, Alta.	Brazeau Collieries Ltd.	Jan., 1955
Alexo, Alta.	Alexo Coal Company	Feb., 1955
Edmonton, Alta.	Edmonton Collieries, Red Hot Coal Company, & Riverdale Coal Co.	Feb., 1955
Cambria, Alta.	Western Gem & Jewel Coal Co. Ltd.	March, 1956
Commander, Alta.	Commander Mine	August, 1956
Luscar, Alta.	Luscar Coals	Oct., 1956
Aerial, Alta.	Rosedale Collieries Ltd.	Feb., 1957
Lethbridge, Alta.	Lethbridge Collieries (#8 Mine) and Hamilton Coal Co.	April, 1957
Wayne, Alta.	Sovereign Coals Ltd.	Feb., 1957
Blairmore, Alta.	West Canadian Collieries (Greenhill Mine) since re-opened with reduced crew	April, 1957
Fernie, B. C.	Crow's Nest Pass Coal Co. Ltd.	Jan., 1958
Foothills, Alta.	Canadian Collieries Resources Ltd.	Feb., 1958
Drumheller, Alta.	Brilliant Coal Company	April, 1958
Rosedale, Alta.	Rosedale Collieries Ltd.	May, 1953
Carbon, Alta.	East Carbon Coal Co.	May, 1958





<u>Location</u>	<u>Coal Company</u>	<u>Date of Mine Closure</u>
East-Coulee, Alta.	Murray Collieries Ltd.	April, 1959
Drumheller, Alta.	Midland Coal Company	March, 1959
Mercoal, Alta.	Canadian Collieries Resources Ltd.	July, 1959

In addition to the aforementioned, the following mines in the Estevan-Bienfait coal field of the province of Saskatchewan were closed down in the year 1951:

Estevan, Sask.	Jenish-Brothers
Estevan, Sask.	Havanah Collieries Ltd.
Bienfait, Sask.	Eastern Collieries
Bienfait, Sask.	Banner Coal Co.
Bienfait, Sask.	North Star Coal Mine
Estevan, Sask.	Tidsdale Mine

These companies closed their operations through loss of markets, due to dieselization of railroads, competition of gas and oil, and the importation of American coal into the large industrial areas in Ontario.

The tonnages of coal imported from the United States from 1946, which was peak year in western Canada coal production, to 1958 inclusive, was as follows:  
(and they are enumerated. I don't think there is much use in reading them all out.)







1 IMPORTS OF COAL FROM THE UNITED STATES & GREAT BRITAIN  
2 1946 to 1958

3	<u>Year</u>	<u>Tonnage</u>	<u>% of Consumption</u>
4	1946	25,740,704	61
5	1947	28,462,242	66
6	1948	30,454,917	64
7	1949	21,833,057	54.7
8	1950	26,649,049	59.4
9	1951	26,523,921	60.2
10	1952	24,603,789	59.5
11	1953	22,900,392	60
12	1954	18,322,056	56
13	1955	19,490,013	
14	1956	23,120,300	
15	1957	20,002,075	
16	1958	13,361,810	

17 Source: Dominion Bureau of Statistics

18 In the year 1946, the peak year for production  
19 in western Canada, District 18, United Mine Workers of  
20 America, recorded a membership of 9500 employees who  
21 were steadily employed in the coal mining industry. Due  
22 to closures of mines as aforementioned, our membership  
23 declined to approximately 2700 in 1958. The membership  
24 further declined in 1959 to 2300 through the closing of  
25 the Midland mine at Drumheller, Alta.; the Murray mine  
26 at East Coulee, Alta.; and the mine at Mercoal, Alta.

27 This has brought about a serious situation  
28 of unemployment among the members of our organization and  
29 in a great number of instances, unemployment insurance  
30 benefits have been depleted and it has been necessary for  
members to apply for relief. It is admitted, however, that





1  
2 of the approximately 7000 members who have been forced  
3 out of the industry since 1946, the younger men who are  
4 adaptable to other types of employment have found employ-  
5 ment in other industries (and it would appear that the  
6 experienced youth have been lost to the coal mining  
7 industry.)

8 The men in the older age brackets of 45 years  
9 and over, who are fully qualified miners and forced out  
10 of the industry after giving twenty-five to thirty years'  
11 service, and who find it practically impossible to find  
12 employment in other industries, have no other recourse  
13 than to accept unemployment insurance benefits until  
14 such benefits become depleted. Then the only avenue left  
15 for them is to seek relief assistance from the government  
16 of the province in which they reside.

17 There are also a large number of persons whose  
18 employment directly depends on the coal industry, namely;  
19 Lumber employees who supply timber to the mines; manu-  
20 facturing employees who supply various types of equipment  
21 used in the coal mines; and railway employees who have  
22 lost their employment through declining coal markets.

23 In the coal mining camps in western Canada, by  
24 the loss of employment of our members, the resultant loss  
25 of payroll has been appalling in the past few years.  
26 The closure of mines and slack periods of work has affec-  
27 ted not only the men themselves, but their families.  
28 Large numbers of families affected owned their own homes  
29 and property. With no employment available due to the  
30 closing of the mines, they were forced to leave their  
homes, for which they had striven the better years of





1  
2 their lives to own, with no hope of any financial recovery,  
3 as camps listed previously as having closed down are now  
4 ghost towns.

5 The Alberta provincial government set up a  
6 rehabilitation fund of \$100,000 to which was added a  
7 further \$50,000 for the purpose of rehabilitating miners  
8 from distressed areas to other centres, by the payment  
9 for moving of household effects. This procedure of  
10 moving the population from deserted coal mining areas to  
11 larger urban centres was no solution, as the older miner  
12 above referred to found it exceptionally difficult to  
13 gain employment in other industries due to age and  
14 trade qualifications.

15 The United Mine Workers of America believe  
16 that the dominion government has a great responsibility  
17 to continue to extend every assistance to the industry  
18 and assist in finding markets to place the industry in an  
19 economic position whereby the industry will be able to  
20 survive and give full and continuous employment to all  
21 its employees.

22 The extensive mine closures in recent years  
23 represent a definite loss to the Canadian economy, which  
24 cannot be recovered as experience has proven the economic  
25 impossibility of re-opening a mine.

26 During the Second Great War, there was a serious  
27 shortage of coal in Canada, and both the coal operators  
28 and the membership of District 18, United Mine Workers  
29 of America, were pressed by the government to produce  
30 more coal. The coal mining industry in wartime was placed  
on an emergency basis and personnel employed were somewhat







1  
2 protected to the extent that large numbers of men were  
3 released from the army to take employment in coal mines.  
4 Others who had coal mining experience were directed to  
5 return to the coal mines from other industries in order  
6 that coal production could be increased.

7 The aforementioned situation was somewhat  
8 paralleled in the First Great War and such a situation  
9 during a war emergency could very well arise in the  
10 future. It should be mentioned that coal mines cannot be  
11 developed overnight, and by the same measure, experienced  
12 coal miners can only be trained over a lengthy period.  
13 It is suggested that the coal mining industry is an abso-  
14 lute necessity to our national welfare and existence. It  
15 is definitely essential and preferable that the federal  
16 government preserve the industry in the interests of Canada  
17 as a nation, having regard to the large coal reserves in  
18 western Canada, which will be stated and elaborated on in  
19 the briefs presented to the Commission by the Coal Oper-  
20 ators and the provincial governments of western Canada  
21 in connection with the serious situation which exists in  
22 the coal mining industry, and which involves the liveli-  
23 hood of many thousands of our members.

24 Numerous representations have been made to  
25 the Minister of Mines and Technical Surveys in the past  
26 number of years on behalf of the membership of our organ-  
27 ization. Our views are that imports of coal from the  
28 United States of America to Canada, amounting to millions  
29 of tons per year (refer to Coal Imports from the United  
30 States and Great Britain), should not be allowed while  
experienced coal miners are being deprived of their





1  
2 livelihood.

3         The bituminous section of the industry has found  
4 some relief in the past years by exporting coal to Japan  
5 for coking and metallurgical purposes. The federal govern-  
6 ment has assisted by increasing the subsidy from \$4.00 to  
7 \$4.50 per ton. It is to be hoped that the Japanese  
8 steel industry will require greater quantities of coal  
9 from western Canada in the future.

10         The federal government should continue the pres-  
11 ent subsidy and increase this subsidy if economic and  
12 market conditions warrant it. The industry could be  
13 further assisted by the federal government by their  
14 co-operation in developing export markets for western  
15 Canadian coal.

16         We believe the principle contained in the use  
17 of coal for thermal power production, in the long term  
18 view, will be the basic solution of many of the diffi-  
19 culties facing the coal industry at the present. Building  
20 thermal power plants close to the mines will definitely  
21 eliminate transportation costs, and according to all  
22 reports, this type of development is advancing very  
23 rapidly in the province of New Brunswick and the United  
24 States.

25         It is also suggested that in the initial stages  
26 of thermal power development that the governments - and  
27 notice I mention plural in such cases - should contribute  
28 to the initial costs of building such plants, and in  
29 addition thereto, the federal government could enter into  
30 a long-term arrangement of say five years, during which  
period a reasonable subsidy per ton should be paid for







1  
2 all coal so used in order that such plants be given a period  
3 of time to consolidate themselves, in order that coal  
4 can successfully compete with natural gas and oil in the  
5 interim period.

6 The Commission should give serious consideration  
7 to assisting the domestic coal section of the industry,  
8 which could be relieved by transportation costs being  
9 reduced, or the payment of transportation subsidies by  
10 the government to all areas where western Canadian  
domestic coal is sold.

11 The above portion of this brief is relative to  
12 the economic situation as pertains to coal mining areas  
13 in western Canada, and clarifies for you, Mr. Commissioner,  
14 the hardships which our membership have encountered  
15 since 1946. The following part of our submission has  
16 been broadened to cover conditions in the coal mining  
17 industry of Canada in general. At this point, Mr. Com-  
18 missioner, this next part of our brief was prepared by  
19 the international office in Washington on behalf of the  
20 Canadian membership. Before proceeding, I have heard  
21 that this part has already been submitted to you as a  
supplementary brief in Nova Scotia.

22 THE CHAIRMAN: Yes.

23 MR. BOYD: Whether you wish it read it here on  
24 behalf of our membership - it is similar to what you have  
heard.

25 THE CHAIRMAN: You just use your own judgment.

26 MR. BOYD: I will continue on, Mr. Commissioner.

27 The chaos existing in Canadian coal can be  
28 classed as nothing less than a national emergency. The  
29  
30





1  
2 economic degeneration evident in the coal fields in both  
3 the eastern and western provinces is so appalling that it  
4 poses a grave threat, not only to those areas directly  
5 involved, but also to the national welfare of the dominion.

6 During the past ten years, coal production has  
7 decreased sharply in all producing provinces. This  
8 plummeting output in the face of a general increase in  
9 total energy consumption points to the serious competitive  
10 relationship under which the industry must operate.

11 A brief analysis of the major problems confront-  
12 ing Canadian coal might assist the Commission to under-  
13 stand some of the proposals we shall put forth later.  
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2 Initially the coal mines of the Dominion are  
3 located far from the centres of consumption. In both  
4 eastern and western provinces, transportation charges are  
5 an effective competitive barrier as far as coal sales  
6 are concerned. The population density of the Dominion is  
7 centred in the provinces of Ontario and Quebec, which  
8 contain over 50 per cent of the total population and the  
9 vast bulk of industry and commerce. Since coal must be  
10 carried over one thousand miles in the east and over two  
11 thousand miles in the west, it obviously has trouble  
12 entering the only large-scale market available to it.

13 The production of Canadian mines is so low that  
14 it raises the price of the product out of competitive  
15 range. The principal cause of this is in the nature of  
16 the coal seams and their lack of suitability to the  
17 introduction of labour-saving devices. Because of this,  
18 the f.o.b. mine price has been kept too high in relation  
19 to the other fuels.

20 The third adverse factor has been a superabun-  
21 dance of competing fuels. Often these fuels are in a  
22 much better position to fill Canadian energy needs than  
23 coal. These three are natural gas and oil from western  
24 Canada, bituminous coal from the United States, and  
25 foreign oil principally from Venezuela. During the past  
26 ten years these three sources, most notably oil and natural  
27 gas, have expanded rapidly. Viewing the long-term trend,  
28 petroleum and natural gas will continue to expand and  
29 consolidate their hold as the dominant energy sources  
30 of Canada.

31 In summary, the coal industry faces five seem-  
32 ingly insurmountable obstacles:







1  
2 1. Its location in areas far removed from the  
3 principal centres of population and manufacture.

4 2. Its unsuitability for the introduction of  
5 labour-saving machinery which would enable it to lower  
6 the cost of production and thus be in a more competitive  
7 position in the energy market.

8 3. The abundance of other fuels, especially  
9 petroleum and natural gas, under circumstances which place  
10 them in an extremely advantageous position.

11 4. The rapid conversion of the Canadian rail-  
12 roads from coal-firing to diesel locomotives, thus elim-  
13 inating one of the principal markets for Canadian coal.

14 5. The attitude on the part of domestic con-  
15 sumers that coal is an old fashioned, dirty fuel, un-  
16 suitable for use and their resultant conversion to other  
17 fuels.

18 The social and economic consequences of this  
19 slow collapse must be measured in terms of human con-  
20 siderations and economic effect.

21 Briefs submitted separately by District 18  
22 and 26 of the United Mine Workers of America outline in  
23 a more specific way the loss of jobs brought about by the  
24 decrease in coal production in their own districts.  
25 What we want to re-emphasize here is the necessity of  
26 alleviating the human problems caused by unemployment.

27 Unemployment is one economic ill which demands  
28 solution. No other economic ill affects individuals  
29 within an area more than mass joblessness of their region.  
30 The economic stagnation apparent in the coal fields of  
Canada represent a cancer on the future economic





1  
2 prosperity of the Dominion. The spectre of unemployment  
3 is repulsive to a country which aspires to ascend the  
4 heights. We cannot afford it. We cannot allow it.  
5 Distressed families and terrible living conditions are  
6 the forerunners of social decay and moral degeneration.  
7 Nations do not grow on such material.

8 Thus, we feel it necessary to consider the  
9 problem of unemployment which is a direct result of  
10 coal's decline. But it is a situation which cannot be  
11 evaluated on its economic merits. The question is one  
12 in which people are the pawns, and human suffering on a  
13 vast scale is the price of a wrong move.

14 Several months ago, International Board member  
15 Delaney of District 26, United Mine Workers of America,  
16 toured districts in the United States to observe the con-  
17 ditions there. Although the causes are different in  
18 many cases, the result of unemployment is the same.  
19 Entire states have felt the constant economic pressure  
20 when thousands of citizens lose the only jobs many of them  
21 know -- coal mining. Tax revenues decline, schools,  
22 churches and other institutions fall into disrepair.  
23 This headlong flight into oblivion is self-generating. The  
24 more people unemployed, the greater the need, but with  
25 a constantly diminishing source of revenue. What is needed  
26 here is a whole new approach, a fresh look, as it were,  
27 to an age-old problem.

28 Economically we have witnessed an entire industry  
29 rush headlong toward dissolution. Despite this experience,  
30 experts, both north and south of the border, are busily  
outdoing each other predicting a millennium for coal.







1  
2           The apparent contradiction between our present  
3 pallid industry and the envisioned robust giant of the  
4 future illustrates the economic tragedy which is occur-  
5 ring in Canadian coal. The industry is in no position to  
6 meet future obligations. Vanishing markets and declin-  
7 ing production are signs of decay and obsolescence, not  
8 health and future potential.

9           The question we must ask ourselves is whether  
10 or not Canada can allow her coal industry to so deterior-  
11 ate. Probably those who do not need the experience of  
12 other nations or lack the vision necessary for national  
13 growth would allow such a valuable natural resource to  
14 be thus wasted. Fortunately, however, the more far-  
15 sighted will realise that coal has been the basic energy  
16 source of every major industrial power. This was true  
17 in England, on the continent and in the United States.  
18 Even the Soviet Union and communist China are feverishly  
19 exploiting to the maximum coal resources in their  
20 countries.

21           Our experience in two world wars is a good  
22 indication of the indispensibility of coal. In both  
23 instances every major power was forced to rely on coal  
24 for their basic energy needs. In fact, the Germans  
25 developed many ingenious synthetic products from coal  
26 which materially aided their war effort.

27           Our contention is simply this: Nature has  
28 endowed the Dominion of Canada with many valuable re-  
29 sources. One of the most important of these is coal.  
30 Utilization to the fullest extent of this valuable re-  
source will be of great benefit to all of Canada. If





1  
2 the coal industry is to fulfill the responsibilities  
3 expected of it in the years ahead, steps must be taken  
4 today to make coal mining areas bustling centres of  
5 prosperity, rather than dark areas of unemployment.

6 Quite obviously, the problems confronting the  
7 coal industry in Canada are of staggering dimensions.  
8 Solutions, if there are any, will probably be complex  
9 and involved. We recognize that political, as well as  
10 economic, factors must be weighed carefully by this  
11 Commission in reaching any definite conclusion or pro-  
12 posing any program.

13 The situation as we see it may be viewed from  
14 two aspects: The short term and the long range solution.  
15 Both areas are critical. Obviously any program must not  
16 sacrifice the long-term interest of the Dominion in  
17 favour of short-range panaceas. But we must constantly  
18 remember that the short-term problem is made up of  
19 Canadian citizens in desperate need of assistance.

20 The basic need for coal in the short run is to  
21 stabilize markets and production and to render assistance  
22 to coal miners unemployed or working short time. Many  
23 of the remedies proposed do provide for such short-term  
24 assistance. However, as previously stated, long and  
25 short range plans must not act contrary to one another.

26 We would seriously consider a policy whereby  
27 the buildings and other installations of the federal and  
28 provincial governments would consume coal for heating and  
29 other applicable purposes. Tonnages consumed in this way  
30 would provide one secure outlet for Canadian coal which  
could be used in a marketing base. The first step in







1  
2 initiating the use of coal in provincial and federal  
3 government buildings would be a study to ascertain the  
4 tonnage involved and the benefit the Canadian coal  
5 industry could derive by a market of this kind. Our  
6 national headquarters in Washington, D. C., has found  
7 that in the United States and Canada, coal has been  
8 discriminated against by various government agencies in  
9 favour of competing fuels. We should think, in light of  
10 all the facts presented to this Commission, that our  
11 government would seek to aid coal in every way possible.

12 Unemployed coal miners are not a Canadian  
13 rarity. Thousands of men all over the world have been  
14 thrown out of work because of the decline in coal  
15 production. In the United States, it is estimated by our  
16 organization that over 110,000 men are thus unemployed.  
17 A special committee of the U. S. Senate has been designated  
18 to study this one problem. In testifying before that  
19 committee, Mr. Michael F. Widman, Jr., Assistant to  
20 the President and Director of the Research and  
21 Marketing Department of the United Mine Workers of  
22 America, outlined the need for a constructive program  
23 to aid the unemployed when he said:

24 "We are going to ask that the government of the  
25 United States help the citizens of our great re-  
26 public who live in distressed areas. These men  
27 and women do not seek charity. They demand the  
28 right to provide for their families by useful  
29 labour. We do not feel that it is too much to ask  
30 our own government ----to help these people help  
themselves."







1  
2 In order to alleviate the immediate effects  
3 of unemployment, the unemployment insurance should be paid  
4 for the duration of the unemployed period. The unemploy-  
5 ment system provides the necessities of life to those  
6 unfortunate men unable to find work. It cannot with  
7 propriety or in logic or in common sense be classified  
8 as a dole. The United Mine Workers of America maintains  
9 that there cannot be dire poverty in Canada, when the  
10 vast majority of our citizens are enjoying the highest  
11 standard of life in history. Poverty in the midst of  
12 plenty is an intolerable incongruity, the existence of  
13 which we cannot afford.

14 Complementing the payment of unemployment  
15 insurance, we feel that a vast program of worker rehabil-  
16 itation should be undertaken. In this way men who find  
17 their skills inadequate in a fast changing industrial  
18 world will be in a more advantageous position in secur-  
19 ing job opportunities. In addition, the Canadian miner  
20 will be able to adjust to new conditions and job oppor-  
21 tunities, maintain his pride and self-respect, and most  
22 important, make a contribution to the general welfare of  
23 the nation. An investment in our human resources is the  
24 most important expenditure any government can make. The  
25 Canadian coal miner has a long record of service to his  
26 community and his country. All he asks is an opportunity  
27 to continue this service.

28 While we understand the complexitites attending  
29 upon foreign commerce, the present plight of the domestic  
30 coal industry requires that a concrete examination be  
undertaken of the economic and trade aspects of extending





1  
2 the Canadian market to the Canadian coal industry.  
3 Such an investigation should scrutinize closely the incr-  
4 easing dependence by industry upon foreign energy  
5 sources, especially those requiring ocean transport. The  
6 lessons of World War II were purchased at an extremely  
7 high price. We believe that in the interest of our  
8 national defence, our government should weigh carefully  
9 the availability of our energy sources under any and  
10 all circumstances.

11 The problems of the coal industry of the world  
12 are strikingly similar. Old patterns of consumption are  
13 vanishing. If the industry here or elsewhere is to  
14 survive, it must undertake continuing, vigorous and  
15 co-ordinated research supported by ample funds from the  
16 government.

17 The importance of research in the long range  
18 surmounts all other considerations. In fact, without  
19 research any and all stop-gap measures cannot succeed.  
20 Research is the principal means of salvation for the  
21 Canadian coal industry.

22 Research for coal would serve two valuable  
23 purposes:

24 1. By discovering new methods of utilization,  
25 additional markets will arise to take the place of  
26 present markets which are constantly being eroded by com-  
27 peting fuels.

28 2. Widespread chemical uses of coal could  
29 well result in huge industrial complexes springing up in  
30 coal fields which would not only end the coal unemploy-  
ment problem, but would provide employment for many







1  
2 others in allied industry.

3 The potential for research is almost limitless.  
4 We would like to cite a few illustrations to indicate the  
5 general scope of potential projects with staggering dim-  
6 ensions.

7 The Virginia Polytechnic Institute in Blacks-  
8 burg, Virginia, U. S. A., recently published a report  
9 on a diesel engine using pulverized bituminous coal as a  
10 fuel. The report is the result of a test conducted by  
11 V.P.E. on an invention by a Mr. R. E. Harvey of  
12 Roanoke, Virginia. The idea behind the invention  
13 is hardly new. The original diesel engine was fired by  
14 coal. As associate of Dr. Diesel actually ran a coal-  
15 fired diesel for many years. Unfortunately, the data  
16 on his work was lost to the Russians since the town  
17 where it is located is now behind the iron curtain.

18 But consider for a moment the results which  
19 a coal-fired diesel engine would have for Canadian coal.  
20 A market now almost totally lost would be regained.  
21 Railroad use would inject new life into the dormant  
22 coal fields. The fact that a coal-fired diesel engine  
23 has been tested should be a spur to our own research  
24 efforts.

25 Recently a Curtiss-Wright Corporation in the  
26 United States announced a road paving material using  
27 bituminous coal. This material would substitute for  
28 oil-based asphalt. The principle of the new process  
29 is simple. Raw coal is dissolved in coal tar which is  
30 made in one of two ways, either in the coke-making  
process, or by low temperature carbonization. Strips of





1  
2 road using the coal binder have already been laid and  
3 are being tested in the commonwealth of Kentucky. Other  
4 states, including Colorado, Pennsylvania, West Virginia,  
5 and new Mexico have shown a keen interest in the process.  
6 Curtiss-Wright Corporation and the Peabody Coal Company  
7 have formed a joint corporation to manufacture and sell  
8 the road binder. The magnitude of the market may be  
9 measured when we consider that over two thousand tons of  
10 raw coal will be used to lay one mile of road. This  
11 figure includes the coal used in the tar making process.  
12 Early reports from Kentucky indicate favourable results.  
13 Driveways and airport runways are other outlets for the  
14 material, since it does not dissolve in the presence  
15 of petroleum products. It is just another example of  
16 what research can do.

17 The Reading Anthracite Company located in the  
18 anthracite coal fields of Pennsylvania is planning to  
19 build a chemical plant to extract raw chemicals from  
20 anthracite silt. If successful, an entire new industry  
21 will be born. Additionally, more coal will be required  
22 after the silt is exhausted. But more importantly, a  
23 chronically depressed area will receive a most welcome  
24 economic boost.

25 These few examples indicate the potential exist-  
26 ing in research. The future of the coal industry lies  
27 in a wider area of use, the means to, and the knowledge  
28 of which are, until now, a factor of relative insignifi-  
29 cance. Consequently, a greater and co-ordinated program  
30 of research into the possible uses of coal should be under-  
taken by the federal government with the continuing and





1  
2 vigorous co-operation of the governments of the five  
3 provinces where coal is produced. Research should be  
4 stepped up and some of the monies asked for in the  
5 form of subsidies should be plowed into research. Such  
6 monies should be an annual budgetary allocation on a  
7 continuing basis. In short, the individual efforts now  
8 being undertaken by separate provinces and universities  
9 should be pulled together into a national concerted  
10 program of well planned research.  
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2 One final long range solution to coal's problems  
3 is worthy of consideration. As the industrial economy of  
4 Canada grows, her need for power is certain to expand  
5 apace. Obviously, the water power now widely used will  
6 prove inadequate. Since a new powersource will have to  
7 be found, we would suggest that consideration be given  
8 to the expanded use of coal as a principal or supple-  
9 mental energy source. In the United States, for example,  
10 coal supplies 55 per cent of all electricity generated.  
11 Even the Tennessee Valley Authority, which was originally  
12 all hydro, has become the largest single consumer of bitu-  
13 minous coal in the world. Government aid in this area  
14 would serve a twofold purpose:

15 1. It would be of considerable benefit to the  
16 coal industry and would provide vast new markets for it.

17 2. It would assure Canada of adequate energy  
18 to power the industrial development now and in the future.

19 The problems of coal are not impossible to  
20 solve. The efforts of all interested groups joined  
21 together in the common cause will go a long way to  
22 reviving the industry. The United Mine Workers of  
23 America pledges its unstinting efforts in this cause.

24 We request your Commission to give serious  
25 consideration to these important problems, and trust that  
26 you may be able to recommend a suitable solution.

27 SUMMARY:

28 We recommend:

29 I The full utilization of Canadian coal be made  
30 before any imports of American coal be considered, and  
the immediate establishment of a national coal policy,





1  
2 which would permit the marketing of all Canadian coal  
3 in order that the national economy will be assured in  
4 the event of emergency.

5 II The government increase the tariff on coal  
6 imported from the United States. By so doing, a higher  
7 subsidy or subvention could be paid on coal produced  
8 in western Canada, which would place the industry in a  
9 better competitive position in the markets of the large  
10 industrial areas in Ontario, or

11 III A quota system should be instituted by the  
12 government, which would divert  $2\frac{1}{2}$  million tons of imported  
13 coal, which can be produced in western Canada and subsidies  
14 should be paid on the transportation of all coal.

15 IV The federal and provincial governments should  
16 assist by arranging that all federal and provincial  
17 institutions use only Canadian coal, which would allow  
18 additional outlets for Canadian coal in the central  
19 provinces.

20 V That all thermal power plants use coal as a  
21 fuel which would expand the industrial markets in western  
22 Canada. Assistance as previously stated should be  
23 granted in the building of such plants. (We have been  
24 advised that thermal power plants in the eastern provin-  
25 ces have received assistance from the federal government  
26 for construction purposes.)

27 VI The federal government should co-operate with  
28 the provincial governments in continuing and expanding  
29 the research work on coal which is being carried on at  
30 present.

VII Centres be established by the government in







1  
2 depressed coal mining areas for the purpose of giving  
3 vocational training to miners who have lost their  
4 employment in the coal mines in order that they can  
5 become rehabilitated in other industries.

6 Respectfully submitted on behalf of  
7 District 18, United Mine Workers  
8 of America.

9 Edward Boyd, President  
10 Wm. Ure Secretary-Treasurer

11 THE CHAIRMAN: Thank you, Mr. Boyd. Any  
12 questions?

13 MR. GUNN: Yes, one or two, sir. Mr. Boyd,  
14 I notice in the portion of your brief that you were  
15 concentrating on the federal government for assistance.  
16 Have you ever applied on behalf of the U. M. W. to the  
17 provincial government for assistance?

18 MR. BOYD: I might say in the last few, oh,  
19 last number of years, in fact, to my knowledge the last  
20 Royal Commission sat in Calgary in 1946 we have made  
21 nearly annual representations to the Minister of Mines  
22 and Technical Surveys in Ottawa.

23 MR. GUNN: That is federal.

24 MR. BOYD: I want to think just what I am going  
25 to say next without getting into any trouble. In Ottawa  
26 and previously to the Minister of Mines, let us say the  
27 Minister of Mines of the previous government.

28 He used to always say to us "What is the  
29 provincial government going to do about it? They have  
30 got lots of money." We would come back to Alberta to





1  
2 make representations to the provincial government of  
3 Alberta and in British Columbia numerous occasions and  
4 we were told by the provincial government the matter  
5 was one which does not come under their jurisdiction so  
6 that it does appear as far as the United Mine Workers  
7 making representations, they have to both types of govern-  
8 ment during all these years and governments, whether the  
9 federal government or provincial government are jealous  
10 of their autonomous rights, also their jurisdiction.

11 MR. GUNN: Just coming down to the provincial  
12 government at the moment, what did you ask them for?

13 MR. BOYD: Assistance.

14 MR. GUNN: What kind of assistance?

15 MR. BOYD: Financial assistance. What kind  
16 could we ask for?

17 MR. GUNN: In what respect?

18 MR. BOYD: In other words, in the same respect  
19 as we are advised that Nova Scotia provincial government  
20 threw \$500,000 into the pot. At least, we are so told.

21 MR. GUNN: Were you asking the provincial govern-  
22 ment here for assistance to the extent of \$500,000?  
23 Is that it?

24 MR. BOYD: As near as possible. Let's put it  
25 that way. Coming back to the jurisdiction, I might just  
26 explain myself completely.

27 MR. GUNN: No, I do not want to take up too  
28 much time. I was just interested in any assistance you  
29 had asked of the provincial government, but if we have  
30 it now -

MR. BOYD: We asked financial assistance.





1  
2 MR. GUNN: Of \$500,000. Now after the pits  
3 were closed, apparently an effort was made to rehabilitate  
4 the ex-employees by transporting them from point A to  
5 point B. Are there any vocational schools in this  
6 province?

7 MR. BOYD: There are at the moment vocational  
8 schools.

9 MR. GUNN: How many vocational schools?

10 MR. BOYD: I don't know where they are but I  
11 would suggest there is one in Calgary. Our idea, as  
12 far as vocational school was concerned, is for what we  
13 term the forgotten miners, that is the miner from 45 to  
14 60 or 65. We say that such rehabilitation centres  
15 should be in the mining camps themselves.

16 MR. GUNN: Of the vocational schools that do  
17 exist at the present time, are any of the ex-coal employees  
18 attending, to your knowledge?

19 MR. BOYD: Not that I know of with the excep-  
20 tion of men who have been seriously injured in a hazardous  
21 industry and the Workmen's Compensation Board has  
22 such a setup.

23 MR. URE: If they are drawing unemployment  
24 insurance, they cannot attend a vocational school unless  
25 they get permission from the unemployment insurance.  
26 Therefore, they lose their work and lose their payments  
27 because they are not available for work if they are  
28 attending vocational schools.

29 MR. GUNN: That definitely would have a strong  
30 tendency to prevent some miners from going to the  
vocational schools.







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MR. URE: It does.

MR. GUNN: Does that also apply in the province of British Columbia?

MR. BOYD: Yes.

MR. GUNN: How about the province of Saskatchewan?

MR. URE: Up to now, at the present time in the province of Saskatchewan over a number of years we haven't been affected too much by men being left out of work. While there have been a large number of men displaced, they were displaced at a time when work was plentiful and they were all taken into other industries.

MR. GUNN: Now, then, again on page 9 of your brief which is Exhibit 50, it is stated there:

"Our views are that imports of coal from the United States of America to Canada, amounting to millions of tons per year, should not be allowed while experienced coal miners are being deprived of their livelihood."

Has the U. M. W. made any study as to whether or not Canadian coal is good in the making of steel in the province of Ontario? Has such a study been made?

MR. BOYD: We haven't made that study but as you know, it is Canadian coal and some half million tons has been exported to Japan just for that purpose.

MR. GUNN: That is bad, but I was just wondering if you had made a study.

MR. BOYD: We haven't.

MR. GUNN: Then I believe you did wish to clarify a matter which arose in the evidence that was adduced here this morning, dealing with Exhibit 44 which





1  
2 is the submission to the Royal Commission on Coal (1959)  
3 from the Department of Mines and Minerals, government  
4 of the province of Alberta. At the bottom of page 11 it  
5 is stated there the number of families moved under  
6 government assistance from these various coal areas were:  
7 Now the Coal Branch area -

8 MR. BOYD: I am not acquainted with the numbers,  
9 sir.

10 MR. GUNN: What did you wish to say?

11 MR. BOYD: The point I wanted to make here is  
12 that the witness said that there were families in the  
13 Coal Branch area and he again the second time said Coal  
14 Branch.

15 Now, there are no families in any of the Coal Branch that  
16 I know of with the exception of Mercoal, which is part  
17 of the Coal Branch and he did not actually mention  
18 Mercoal.

19 We have still a local union functioning there  
20 and it has some sixty members, and according to the best  
21 information we have, there are fifty families, or nearly  
22 fifty families, living in Mercoal, Alberta. Now the  
23 reason that they are living there at the moment is the  
24 fact, sir, that when the mines closed down in July of  
25 last year, they had unemployment insurance and before  
26 seeking employment in the outside cities such as Edmonton,  
27 Calgary, and so forth, I believe that most of the men thought  
28 well, at least stay the winter in Mercoal, in fact, in  
29 their own homes.

30 MR. GUNN: That is the winter of 1959/60?

MR. BOYD: That is right. At least stay until this







1  
2 spring before coming up to the outside to look for a job  
3 and to see how the economic situation was as far as  
4 unemployment is concerned. Basically, that is the reason  
5 they stayed at Mercoal, some 50 families.

6  
7 MR. GUNN: What about the Crow's Nest Pass?  
8 The figure given in Exhibit No. 44 is that 132 families  
9 subsequently were moved.

10 MR. BOYD: That is right, there is no quarrel  
11 about that.

12 MR. GUNN: Drumheller

13 MR. BOYD: That would be right.

14 MR. GUNN: Canmore is six.

15 MR. BOYD: That is right.

16 MR. GUNN: Nordegg area, 214?

17 MR. BOYD: That is what we understand at the  
18 moment.

19 MR. GUNN: Thank you very much.

20 THE CHAIRMAN: Thank you, Mr. Boyd.

21 THE SECRETARY: Mr. Commissioner, the next  
22 brief will be presented by Mayor N. E. Aboussafy of the  
23 Joint Crow's Nest Pass towns' committee. This brief  
24 will be recorded as Exhibit No. 51.

25 ---EXHIBIT NO. 51: Submission of the Joint  
26 Crow's Nest Pass Towns'  
27 Committee.  
28  
29  
30





SUBMISSION OF  
JOINT CROW'S NEST PASS TOWNS'  
COMMITTEE

Appearances:

Mr. N. E. Aboussafy, Chairman

Mr. White, Mayor, Fernie, B. C.

MR. ABOUSSAFY: I have with me Mayor White of the city of Fernie. He is representing the south-eastern part of Alberta.

We, the Joint Crow's Nest Pass Towns' Committee represent the city of Fernie, the towns of Coleman and Lethbridge, the villages of Frank, Bellevue and Lundbreck, as well as their Chambers of Commerce and Boards of Trade, an area spreading over a distance of sixty miles along the Canadian Pacific Railway, which was built and sustained on coal production and for over the past fifty years developed a sound economy, capable of producing over three million tons of medium volatile coking bituminous coal per year, and the employment of over three thousand persons.

However, today's coal production and employment are only about 20 per cent of the area potential. The extent of coal mining operations is now only a shadow of its former size, which naturally has adversely affected the economy of the area, in line with that in other coal producing fields throughout the province. The following statistics relating to coal production in the province





1  
2 of Alberta will give some idea as to the extent of economic  
3 reduction suffered in recent years:-

4 Production 1949	8,616,983 tons.
5 Production 1957	3,155,354 tons
6 Production 1959	2,500,000 tons.

7 Irrespective of this fact, and the fact that  
8 other coal mining communities in the province are now  
9 ghost towns, the question of a disintegrating coal mining  
10 industry is a very serious matter for Canada as a whole,  
11 and western Canada in particular.

12 The future of any country in this modern  
13 and progressive world is, in a large way, governed by  
14 the value of its natural resources, and the ability of the  
15 country to exploit them to its full extent. This situation  
16 applies particularly to Canada, a country which is pres-  
17 ently blessed with an over-concentration of hydrocarbons.

18 Production of bituminous coal in this general  
19 area alone has fallen from a peak of some four  
20 million tons in 1949, to around 800,000 tons in 1959, with  
21 disastrous effects on coal mines which were, and could be  
22 again, valuable assets in the contribution of hydro-  
23 carbons to a progressive Canada.

24 Reasons for this serious reduction in coal  
25 production and the general disintegration of the coal  
26 mining industry is, of course, the development of oil  
27 and gas fields of western Canada, and their displacement  
28 of coal in its natural markets.

29 The Canadian Pacific Railway who, in normal  
30 times, purchased 70 per cent of the coal produced in this  
area, are now completely dieselized, and purchase no coal







1  
2 for locomotive fuel. --

3 Power companies, cement plants, paper companies,  
4 and many other large coal burning institutions in central  
5 and western Canada have now converted their fuel require-  
6 ments to either fuel oil or natural gas, with disastrous  
7 effects upon the coal industry of western Canada.

8 The domestic coal requirements, that is, coal  
9 supplied to the householder, whether it be in the city,  
10 town or country, is being rapidly displaced by fuel oil,  
11 natural gas or propane, throughout the whole coal burning  
12 area from Vancouver Island to Winnipeg.

13 Should this trend continue, the over-all result  
14 will be that Canada's coal industry will be forced out  
15 of business, which in the opinion of many competent  
16 authorities on this subject, will be nothing short of  
17 an industrial and national calamity.  
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2           There are many reasons of national importance  
3 why a Canadian coal industry should be preserved at an  
4 economic level, some of which can be enumerated as  
5 follows:

6       (1)           Coal which contains from 60 per cent to 80  
7 per cent carbon, has been the basis for industrial pro-  
8 gress in every country in the world. It can be further  
9 noted that countries with no developed coal supply have  
10 made little or no industrial progress.

11       (2)           A steady supply of hydrocarbons should be made  
12 available to industry from as many sources as possible,  
13 as an insurance against the failure or shrinkage of supply  
14 from any one or more sources.

15           The significance of this statement can only  
16 be fully realized by visualizing a sudden drop in the  
17 supply of oil and/or natural gas from present sources of  
18 supply across the western prairies, and particularly so  
19 if our coal industry has already been abandoned.

20       (3)           Carbon in its many forms, is the chemical base  
21 for our energy requirements, and coal contains 90 per  
22 cent of the world's supply of carbon, with petroleum  
23 products containing less than the remaining 10 per cent.  
24 In western Canada the potential fuel and energy reserves  
25 in coal is three times that of petroleum products, even  
26 accepting the most optimistic estimates of natural gas and  
27 oil reserves in the ground.

28       (4)           We are presently spending one and one-half  
29 billion dollars per year on national defence, but in case  
30 of war involving us, the value of our defences would be  
reduced to something near worthless without a steady and







1  
2 sufficient supply of good coal being available to industry.

3 (5) With the continued trend of industrial expansion  
4 in this western country, the ever-increasing demand  
5 for energy will run a paralleled course, thereby creating  
6 a situation where unlimited amounts of coal will  
7 become necessary to complement supplies of petroleum  
8 products, rather than compete against them. This situation  
9 could be come evident at a date much earlier than is  
generally accepted.

10 Coal, coke and power are the necessary ingredients  
11 for successful industrial expansion, and this long  
12 range fact will not be changed in the foreseeable future.

13 (6) Metallurgical industries are in the development  
14 stages in western Canada at this present time, and it is  
15 fully recognized just how much such industries rely on  
16 an available supply of coal, coke and power, irrespective  
17 of how much fuel oil and gas is available. Without  
18 a Canadian supply of suitable coal, the development of  
19 such industries could be retarded unless the required coal  
be imported from the U. S. A.

20 Such a situation would make Canada look ridiculous,  
21 when we have unlimited reserves of suitable coal,  
22 with nobody to operate them.

23 (7) Oil and natural gas reserves are not without  
24 their limits, whereas our known reserves of coal are  
25 practically without limits, and the matter of using our  
energy sources should be reviewed on this basis.

26 Coal reserves will not deteriorate when left  
27 in the ground, but if the industry is abandoned, then  
28 there will be no physical, financial or engineering  
29  
30





resources available to renew the development and production of coal, which could seriously effect an orderly growth of Canadian industry.

Strip mining could be used as an expedient, to obtain a speedy supply of coal, but this coal by its very nature, is limited in its application, and the majority of our reserves of good quality coal must be mined by underground methods.

Other factors can be introduced to substantiate good reason for the preservation of at least a nucleus of the coal mining industry, in that -

(a) Mining towns, with all service facilities, roads and railroads are already in existence.

(b) A large percentage of the homes in these towns are privately owned by our present and former employees, and steps taken to preserve the industry will assist in preserving these towns, and the homes of individuals, which after all is the grass roots basis for a successful economy in any country.

(c) Millions of tons of coal are presently developed in these mines, which would be permanently lost if the industry is abandoned.

(d) By preserving the coal industry, our country would have the finest insurance possible in having a continuous supply of good coal available for industry. A fuel policy for Canada - not only an oil and gas policy - would provide for the efficient use of this over-all supply of hydrocarbons for Canadian industry, on which can be built a solid and lasting national economy.







1  
2 The coal industry has always been a major employer  
3 of labour, and has always been an important source of emp-  
4 loyment for the forty to-fifty-five year old age group.  
5 Dominion Bureau of Statistics for the whole of Canada  
6 show the average of the over forty-five age group to  
7 be 12.7 per cent of the placement made by the National  
8 Employment Service. Statistics of placements by the  
9 National Employment Service for this area show 57 per  
cent in this over forty-five age group.

10 Men of this age group who have been laid off  
11 from coal mining have found it very difficult to become  
12 rehabilitated in other branches of industry, in spite  
13 of the fact that they are capable of doing a good day's  
14 work.

15 This situation is creating some concern to our  
16 present government, as per recent inquiries from Hon.  
17 M. Starr, Minister of Labour.

18 A thriving, active coal mining industry could  
19 relieve this aggravating situation, as well as reducing  
20 the demand for unemployment insurance benefits. In 1958  
21 some \$726,000 was paid out in U. I. C. benefits, and over  
\$600,000 in 1959, in this area alone.

22 With reference to the employment of labour,  
23 it is important to note that coal mines are generally  
24 very busy during the winter months, and therefore in  
25 a position to employ labour at a period when the over-all  
employment figures in Canada are at a low level.

26 Since the survival of nearly every industry of  
27 consequence in Canada depends on either subsidy or  
28 protection, we in the Crow's Nest Pass area feel that in  
29  
30







1  
2 the face of the facts presented above as to the coal in-  
3 dustry helping employment, particularly those of the upper  
4 age bracket, and decreasing the cost of unemployment  
5 insurance, that further subsidies to bolster the coal  
6 industry and thereby stabilizing the economy of the coal  
7 mining areas, are in the interests of the country as a  
8 whole.

9 As the question of sustaining the coal industry  
10 is of national economic importance, then the federal  
11 government should take effective steps by various means  
12 to preserve at least a nucleus of the industry.

13 (1) By insuring an adequate share of the market  
14 now existing in that portion of Canada now available to  
15 western coal by means of equitable freight rates, and  
16 the maintenance or increase of the present subvention  
17 assistance, also by insuring that Canadian coal only  
18 be used in government buildings, and that present prefer-  
19 ence of ten cents per ton to an amount that would place  
20 Canadian coal to better than competitive position when  
21 compared with imported coals. That the Dominion Coal  
22 Board should be maintained, and its activities  
23 increased by granting it additional powers in the control  
24 and use of coal in the fuel policy of Canada.

25 (2) In the matter of research in the end use of  
26 coal, the Commission should consider intimate co-oper-  
27 ation between federal and provincial governments to pro-  
28 mote the furthering of coal usage for metallurgical,  
29 chemical and heating purposes, thus providing for long-  
30 term existence of an economic coal industry in the  
interests of a future strong industrial Canada and its  
people.





1  
2 (3) Thermal Power - Considering the near future,  
3 increase of population of western Canada, and its atten-  
4 dant industrial expansion, the demand for electrical  
5 power will no doubt increase beyond the limits of our  
6 present power generating plants. The majority of suit-  
7 able hydro power locations are already in use, and any  
8 remaining ones are far removed from the power load  
9 centres in the west. It has now been accepted by prevail-  
10 ing authorities that the bulk of our future power require-  
11 ments will originate in thermal power plants fueled  
12 by coal. This trend is evident now, but is based mainly  
13 on strip mine coal which is cheaply mined, but is not a  
14 major contributor to the employment of labour, and thus  
15 it is of minor importance to the general economy of any  
16 given area. We therefore suggest that presently planned  
17 extensions in the existing power plants in the province  
18 of Alberta be deferred and substituted by a thermal power  
19 plant built in the Crow's Nest Pass as a means of using  
20 underground mined bituminous coal, supporting the econ-  
21 omy of our towns by the employment of this surplus  
22 labour.

23 Any government assistance in this project will  
24 be offset by the increase in employment, and therefore  
25 should be given serious consideration. In support of  
26 this, we would like to quote from the 1958 Alberta Power  
27 Commission.

28 "The continent of North America is approaching  
29 another explosion of population similar to that  
30 which commenced after the Second World War. Canada  
will share in this and Alberta, because of its







1  
2 "great energy will probably have more than its pro-  
3 portionate share. This indicates that it might be  
4 well to start now to take a careful look at energy  
5 resources and particularly at our coal reserves.  
6 We know that we have about one-half of all the  
7 mineable coal in Canada, but beyond that our know-  
8 ledge is somewhat limited as to the exact delineation  
9 of our various coal seams and the location of  
10 mineable deposits of the order of 100 to 200  
11 million tons which will be required to supply the  
12 power plants of the relatively near future. We are  
13 only now coming to the realization of the fact that  
14 generally speaking in Alberta, power can be produced  
15 from coal more cheaply than from natural gas and  
16 similarly that thermal power is cheaper than hydro.  
17 Coal will produce our basic load of the future while  
18 gas and hydro will find their places -- most valu-  
19 able places -- as peak load supplements from coal.  
20 For Alberta, at least, because of its cheap fuels,  
21 nuclear power is still far in the future."

22 I might say that this report of the same  
23 committee for this year to the Alberta government is  
24 much stronger than this statement.

25 (4) Export of Coal - The subvention assistance  
26 granted to these mines by the present government has  
27 insured the entry of our western coal to the Japanese  
28 market, thereby enabling the mines to increase their  
29 production and continue their existence. Without this  
30 subvention assistance, some of these mines could pos-  
sibly have now ceased operation.





1  
2 This area wishes to extend its thanks and  
3 appreciation to the present government for this timely  
4 assistance. We who are responsible for this brief are  
5 fully aware that mines now shipping coal to Japan are  
6 competing in a world-wide market, and must be prepared  
7 at all times to meet world prices, all of which makes the  
8 degree of subvention assistance of utmost importance.

9 We of the Crow's Nest Pass district respect-  
10 fully submit this brief to your Commission, and trust  
11 that its contents will receive your due consideration  
12 in the interest of an orderly development of our coal  
13 industry for the benefit of the Canadian economy and the  
14 continued high level of employment, and by so doing, the  
15 preservation of a coal industry for western Canada.

16 Mr. Chairman, this is our brief.

17 We trust it has added a little to this hearing

18 It is not our intention to present technical  
19 data - there are many more capable organizations who will  
20 be doing just that.

21 Our main intent is to bring before the Com-  
22 mission an outline of the results the depressed coal  
23 industry has had on our communities.

24 Havoc has been created in the lives of thous-  
25 ands of our citizens. Life savings have been wiped out  
26 - homes have been disrupted. Men who have been indepen-  
27 dent all their lives now find themselves facing relief  
28 or welfare at an age when a comeback is most difficult.

29 All this has happened in an age of prosperity  
30 - in a very wealthy country - and why?

Because those in authority refused to take heed







1  
2 We trust that this Commission, by its wise  
3 recommendations, will help to establish the coal industry  
4 in such a position that the deplorable conditions which  
5 now exist may be corrected.

6 THE CHAIRMAN: Mr. Aboussafy, I would like to  
7 ask some questions, too. Do you think that the tremendous  
8 exploitation of gas and oil in this province has been  
9 a desirable policy?

10 MR. ABOUSSAFY: Exploitation?

11 THE CHAIRMAN: Exploitation in the proper sense  
12 of the term, its development and encouragement and  
13 promotion.

14 MR. ABOUSSAFY: I don't think it has been  
15 exploited yet. At least I do not know much about gas  
16 and oil.

17 THE CHAIRMAN: It is gas and oil that has  
18 caused your trouble.

19 MR. ABOUSSAFY: Yes.

20 THE CHAIRMAN: What would you do with gas and  
21 oil?

22 MR. ABOUSSAFY: We can do tremendous things,  
23 but we do not want to stop progress of gas and oil just  
24 for our benefit, but we think that there is room for  
25 coal as well, providing there is proper protection.

26 THE CHAIRMAN: Take the Drumheller district.  
27 Apparently those mines produce a very fine domestic coal.  
28 Would you prevent the people of Alberta and Saskatchewan  
29 from using anything but coal from that Drumheller district?

30 MR. ABOUSSAFY: No, I think if the people want  
to use gas in their homes, that is fine, or oil.







1  
2 THE CHAIRMAN: You live where?

3 MR. ABOUSSAFY: Coal Mine, Alberta, in the  
4 Crow's Nest Pass.

5 THE CHAIRMAN: Is there any oil sold there?

6 MR. ABOUSSAFY: There are homes which have  
7 oil.

8 THE CHAIRMAN: Any miner's homes?

9 MR. ABOUSSAFY: Yes.

10 THE CHAIRMAN: What do you think of this sort  
11 of thing, that miners themselves are really buying them-  
12 selves out of their own jobs.

13 MR. ABOUSSAFY: That is quite possible, but  
14 you see our coal in the Crow's Nest Pass is more of an  
15 industrial coal than domestic coal, so therefore we  
16 think that there is sufficient room, plenty room in  
17 Canada for that type of coal.

18 THE CHAIRMAN: If you displaced oil so far,  
19 you are going to prejudice the oil business. Do you think  
20 it should be prejudiced?

21 MR. ABOUSSAFY: No, we don't want to be prejudiced.

22 THE CHAIRMAN: Suppose you have a pulp mill  
23 today that is using oil, large quantities of oil. If it  
24 used coal, it would consume 150,000 tons, for instance.  
25 Do you think that the government should make the price  
26 of coal so attractive as to drive that oil out of the  
27 market from that pulp mill?

28 MR. ABOUSSAFY: There should be  
29 someone who could state that better than I can answer it,  
30 someone should be in a better position to be able to  
see that industries of that type use coal.

THE CHAIRMAN: Then you would say that that is  
an industry that should use coal?

MR. ABOUSSAFY: But there is room for oil and





1 gas elsewhere.

2 THE CHAIRMAN: Let's handle one thing at a time. You would  
3 displace oil in that particular industry and substitute  
4 coal for it?

5 MR. ABOUSSAFY: There are a lot of industries -

6 THE CHAIRMAN: Now just let's hold ourselves  
7 to that simple question, because we are listening today  
8 to a great many statements that have never been analyzed  
9 and people are not carrying out the logical implications  
10 of them.

11 MR. ABOUSSAFY: There is quite a trend of  
12 thought today, even amongst the oil people and the gas  
13 people, that these bigger industries should be using  
14 coal instead of the oil or gas and save the gas and oil  
15 to the smaller units where it would be more economical  
16 to use it.

17 THE CHAIRMAN: That may be. Do you think it  
18 would be more economical without a subsidy?

19 MR. ABOUSSAFY: If it is near enough it could  
20 be. If it is not near enough to the railroad, of course,  
21 it would be very expensive.

22 THE CHAIRMAN: What would you do with the railway?  
23 Would you compel them to burn coal?

24 MR. ABOUSSAFY: No, you see with the unemploy-  
25 ment we are facing today, subsidies would help.

26 THE CHAIRMAN: How many altogether are unem-  
27 ployed in the district of 60 miles?

28 MR. ABOUSSAFY: In our district?

29 THE CHAIRMAN: Yes.

30 MR. ABOUSSAFY: There are not many today because  
they have moved some of them out.







1  
2 THE CHAIRMAN: Let's deal with today.  
3 How many are there?

4 MR. ABOUSSAFY: Well, they haven't got a stable  
5 job.

6 THE CHAIRMAN: Would you mind telling me, if  
7 you will, an estimate of how many people are walking the  
8 streets who formerly were miners?

9 MR. ABOUSSAFY: I couldn't say, but there was,  
10 as you can tell by the figure that was paid on unemploy-  
11 ment insurance -

12 THE CHAIRMAN: I know, but those men could have  
13 all been employed or absorbed in other industries for all  
14 I know.

15 MR. ABOUSSAFY: Part time, yes, employed part  
16 time, most of them. You take this winter, there was for  
17 one pay nobody got a cheque.

18 THE CHAIRMAN: Well, of course, I do not think  
19 you realize what real hardship is. Belgium will have to  
20 replace 25,000 miners. What would you say if you were in  
21 Belgium?

22 MR. ABOUSSAFY: Well, we are not in Belgium.

23 THE CHAIRMAN: What would you say if you were?

24 MR. ABOUSSAFY: We are not --

25 THE CHAIRMAN: What should the Belgium govern-  
26 ment do?

27 MR. ABOUSSAFY: That would be their problem,  
28 you see, but the problem of Canada -

29 THE CHAIRMAN: It is the easiest thing in the  
30 world to state a problem and make pious wishes for its  
solution, but it's another thing to suggest something





1  
2 concrete that can really be put into a policy.

3 MR. ABOUSSAFY: You see, Mr. Commissioner, we  
4 do import a tremendous amount of coal into Canada.

5 THE CHAIRMAN: Well, was it that American coal  
6 that stopped your mine from working?

7 MR. ABOUSSAFY: No. We were satisfied with the  
8 railroads.

9 THE CHAIRMAN: You spoke about your market,  
10 and your market is the prairies to the eastern boundary  
11 of Manitoba.

12 MR. ABOUSSAFY: That is right, because you see  
13 we couldn't ship it economically any further.

14 THE CHAIRMAN: In the condition where everything  
15 was free, you wouldn't claim that your natural market  
16 goes beyond the eastern boundary of Manitoba?

17 MR. ABOUSSAFY: I don't see any reason why it  
18 shouldn't. You see, as I mentioned -

19 THE CHAIRMAN: Well, all right, let's see now.  
20 How many miles is it from Fernie to Toronto?

21 MR. ABOUSSAFY: It is quite a distance. But  
22 let's take the Nova Scotia mines, they are not that far  
23 and yet come in in very small quantities.

24 THE CHAIRMAN: Nova Scotia. Really, that is  
25 a province that can speak for itself. It has some  
26 eloquent advocates to speak for it. I am talking of  
27 Fernie.

28 MR. ABOUSSAFY: Well, you see, I think you asked  
29 a gentleman a few minutes ago about why should they  
30 subsidize the coal industry.

THE CHAIRMAN: If I did, I wanted to know the





1  
2 considerations that justified that in a public policy.

3 MR. ABOUSSAFY: Well, I would like to mention  
4 on that, because you see in my belief which I think could  
5 be substantiated, there is hardly an industry in Canada  
6 that isn't subsidized or protected.

7 THE CHAIRMAN: That is one consideration that  
8 the industry generally is subsidized by the tariff, but  
9 is it subsidized without limit?

10 MR. ABOUSSAFY: Practically. You see, we  
11 couldn't import a second-hand automobile from the United  
12 States at any price.

13 THE CHAIRMAN: That is the tariff provision,  
14 is it?

15 MR. ABOUSSAFY: That is right.

16 THE CHAIRMAN: So in second-hand automobiles  
17 we have a perfect market in Canada.

18 MR. ABOUSSAFY: We couldn't allow them to come  
19 in, that is right. You see, I am not saying that they  
20 should allow them to come in. I think if we want industry,  
21 living beside a nation as tremendous and as powerful as  
22 the United States, we have to do things like that. I am  
23 not complaining about it.

24 THE CHAIRMAN: Those qualifications really ruin  
25 your main argument.

26 MR. ABOUSSAFY: No, they don't. You see, let  
27 me explain. If you can protect the industry of automo-  
28 biles, if they can protect the industry of farm machinery,  
29 if they can protect the textile industry by not allowing  
30 any of these products to come in from other countries,  
or limiting their import, then there should be something







1  
2 like that done for the coal industry.

3 THE CHAIRMAN: Just let's confine ourselves to  
4 points Manitoba and west. Now that has not been  
5 affected by American coal at all except conceivably in  
6 Manitoba which isn't very material to the lignite of  
7 eastern Saskatchewan. You cannot force people to buy coal  
8 if they don't want it, can you?

9 MR. ABOUSSAFY: No.

10 THE CHAIRMAN: And it makes no difference what  
11 the use is your views, or assumption is that everyone is  
12 entitled to buy what they please?

13 MR. ABOUSSAFY: That is right.

14 THE CHAIRMAN: And you go further and say it is  
15 desirable that all of the energy resources be developed,  
16 be carried forward, be put on the market and everybody  
17 made as rich as possible, including the consumers.

18 MR. ABOUSSAFY: I don't just quite get that.

19 THE CHAIRMAN: Including the consumers of oil  
20 and gas.

21 MR. ABOUSSAFY: They should be able to buy what  
22 they want.

23 THE CHAIRMAN: Yes, you see the fact is that we  
24 have more potential energy than we can use.

25 MR. ABOUSSAFY: That is right, particularly in  
26 western Canada. Therefore that is one reason why we are  
27 beginning to look at the eastern markets.

28 THE CHAIRMAN: I suppose your position reduces  
29 itself to this: That the Commission on Energy ought to  
30 allocate certain markets to one form and certain to  
another and certain to the third?





1  
2 MR. ABOUSSAFY: It could in a basic industry  
3 like coal industry.

4 THE CHAIRMAN: That is really what you are  
5 suggesting now?

6 MR. ABOUSSAFY: Well, that is part of it.

7 THE CHAIRMAN: What is the other part?

8 MR. ABOUSSAFY: Now, for instance, thermal  
power -

9 THE CHAIRMAN: No, no, I want to get some  
10 consistent conception here. You think coal ought to be  
11 given its share?

12 MR. ABOUSSAFY: It ought to, that is right.

13 THE CHAIRMAN: That means allocation?

14 MR. ABOUSSAFY: Yes.

15 THE CHAIRMAN: And it means allocation by  
16 regulation and that means the whole field of energy will  
17 be parcelled out in relation to particular uses. This is  
what you advance?

18 MR. ABOUSSAFY: It seems, Mr. Commissioner,  
19 - I don't know whether you have heard of this, I know  
20 you must have, you know a lot more about this thing than  
21 I do - there is a "buy American act" across the line.

22 THE CHAIRMAN: Maybe so.

23 MR. ABOUSSAFY: If there is a product which is  
24 not finding a market any place else, they couldn't export  
25 it or they couldn't do anything with it in any other  
26 country, they force the American industry or public to  
use that product by this act.

27 THE CHAIRMAN: But we started out with the  
28 assumption that the reason why your coal wasn't bought  
29  
30







1  
2 was not the American coal but Canadian oil and gas.

3 MR. ABOUSSAFY: No.

4 THE CHAIRMAN: Buy Canadian means buy gas.

5 MR. ABOUSSAFY: It is both. We are importing  
6 around 18 million tons of coal.

7 THE CHAIRMAN: But that doesn't affect your  
8 mines in the slightest because you have no justification  
9 for thinking you can haul those 2,000 miles by railway.

10 MR. ABOUSSAFY: We can haul some of it to the  
11 nearest -

12 THE CHAIRMAN: Haven't you any regard for the  
13 export market of this country?

14 MR. ABOUSSAFY: Export?

15 THE CHAIRMAN: Yes.

16 MR. ABOUSSAFY: Yes.

17 THE CHAIRMAN: What does it mean in relation  
18 to costs?

19 MR. ABOUSSAFY: You mean if we are to export  
20 out of the country?

21 THE CHAIRMAN: Yes. Doesn't that mean reducing  
22 your cost to the very minimum in the world as it is today?

23 MR. ABOUSSAFY: That is right.

24 THE CHAIRMAN: And you shut out American coal  
25 you think your costs are not going to be increased?

26 MR. ABOUSSAFY: Our Canadian coal?

27 THE CHAIRMAN: No, your cost of production  
28 in relation to export trade.

29 MR. ABOUSSAFY: Yes, but of course again my  
30 own view - it can be subsidized. You see, we are sub-  
sidizing a lot of things. We subsidize everything.





1  
2 THE CHAIRMAN: We are going to be prosperous  
3 by taking in each other's washing.

4 MR. ABOUSSAFY: Well, we are doing so much of it.

5 THE CHAIRMAN: Well, maybe so. Thank you.  
6 We will adjourn now until ten o'clock tomorrow morning.  
7

8 ---Whereupon the hearing adjourned until ten o'clock  
9 Friday, April 1, 1960.  
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Calgary, Alberta,  
April 1, 1960.

---On commencing at 10.00 a.m.

THE SECRETARY: Gentlemen, may we come to order, please. Mr. Commissioner, this morning we have three briefs remaining on the agenda. I have been asked to change their order of presentation slightly.

Firstly, I would present Mr. D. S. O'Connell who will present a brief on behalf of the Lethbridge Chamber of Commerce, to be followed by Mr. Park who will present a brief for the city of Drumheller, and to be followed by Mr. A. W. Howard who will present a brief on behalf of the Calgary Power Limited.

Mr. O'Connell's brief will be recorded as Exhibit No. 52.

---EXHIBIT NO. 52: Submission of  
Lethbridge Chamber  
of Commerce.







1  
2  
3 SUBMISSION OF  
4 THE LETHBRIDGE CHAMBER OF COMMERCE  
5

6 Appearances:

7 Mr. D. S. O'Connell, Executive Secretary,  
8  
9

10 MR. O'CONNELL: Ever since the establishment of  
11 coal mining in the Lethbridge field, some ninety years  
12 ago, the industry has been a constant and valuable  
13 source of revenue and employment for the people of this  
14 area. Throughout the near century of its existence, the  
15 industry has experienced cycles of prosperity and  
16 poverty, of high demand for the products or a famine of  
17 orders.

18 During the lean years, doubt has been expressed  
19 as to the future of the industry and the advisability of  
20 retaining the mines. Yet, due to changing conditions  
21 a few years later, the industry found itself experiencing  
22 a renewed demand for the product, even to the extent that  
23 the Dominion Government sought ways of quickly expanding  
24 production to meet the unexpected demand. The coal  
25 industry today, due to inroads of surplus competitive  
26 fuels, again finds itself in a period of low production,  
27 with the value of retaining the mines in question. We  
28 submit that, in a short space of time, demand for the  
29 product as a source of energy will rise sharply, and the  
30 value of protecting the industry through the difficult





1  
2 period will be evident. The reasons for this expectation,  
3 together with advantages of retaining the industry, will  
4 be presented for the Commission's consideration.

5 II Reserves of the Lethbridge Coal Field:

6 The 1958 annual report of the Mines Division  
7 of the Department of Mines and Minerals of the province  
8 of Alberta estimates the reserves of the Lethbridge area  
9 at 700 million tons of bituminous "C", high volatile coal.  
10 The seam lies in an area of 150 square miles, mainly  
11 north and west of the city of Lethbridge, being approx-  
12 imately four to five feet in thickness. The coal has  
13 superior characteristics for domestic use with a low  
14 moisture content giving it good storage qualities. In  
15 addition, it is well suited for industrial use and  
16 steam-raising purposes, having been used in such a role  
17 for many years. The coal is of a non-coking variety.  
18 The deposits of coal, therefore, represent a tremendous  
19 asset and valuable energy source.

20 III Factors contributing to the Present Position of the  
21 Coal Industry

22 It is not necessary to go into a long disser-  
23 tation on the dwindling market for coal for domestic  
24 heating and industrial use. Suffice it to point out that  
25 the rapid discovering of oil and natural gas has resulted  
26 in a very substantial surplus of these competitive fuels  
27 in the market area for Lethbridge coal. The laying of a  
28 network of pipelines across the market area has allowed  
29 gas to largely displace coal as a means of household heat-  
30 ing. There appears to be little ground for expecting coal  
to regain any significant portion of the household







1  
2 market. The future market, therefore, appears to be in  
3 the realm of industrial use, power generation and, to a  
4 lesser extent, commercial heating.

5 The ability of the coal industry to capture a  
6 share of the industrial market at the present time is  
7 seriously hampered by three main factors:-

8 First:- The low wellhead prices now being paid  
9 for natural gas due to the surplus of the commodity and  
10 the continued delivery of gas on previously signed, ex-  
11 tremely low priced contracts.

12 Second:- The two-part system of pricing of  
13 natural gas, whereby the householder and small commercial  
14 user pay one price for their fuel, with the industrial  
15 users' rate being set at such a level as will keep them  
16 on gas or convert them to gas from other fuels. Under  
17 such a system, and with rates set which utilities are  
18 allowed to earn, the industrial rate can be set at such  
19 a level as is necessary to meet, and thereby stifle,  
20 competition, while the semi-captive householders' rate  
21 can be set to provide the necessary return for profit-  
22 able operation of the utility. While gas utilities main-  
23 tain that the increased volume pays some part of overhead  
24 and thus, in the final analysis, reacts to the benefit  
25 of the householders' rate, the fact remains that the  
26 two-part pricing system places competitive fuels at a  
27 major disadvantage, and, in some cases, creates an im-  
28 possible situation. This practice is particularly evident  
29 in areas where natural gas is being introduced for the  
30 first time.

31 Third:- The price of coal used for domestic





1  
2 heating purposes varies greatly according to size - the  
3 larger sizes commanding a higher price. Under present  
4 market conditions it is, therefore, essential that oper-  
5 ators of coal mines employ costlier methods of mining  
6 in order to obtain a maximum of the premium-sized product.  
7 The requirement of a large percentage of plus 2" coal pre-  
8 vents the use of specialized high production continuous  
9 mining machines. Until sufficient industrial market is  
10 available, the domestic industry cannot take full ad-  
11 vantage of the latest advances in coal mining technology.  
12 However, as the industrial market becomes available,  
13 employment of such machines will materially reduce  
14 production costs and greatly improve coal's competitive  
15 position.

#### 16 IV Future Prospects for the Coal Industry

17 It is anticipated that the next few years,  
18 possibly four or five, will represent the most  
19 difficult time for the coal industry. With the United  
20 States burning 1.25 billion cubic feet of gas per hour,  
21 and the American Gas Association predicting a doubling  
22 of the industry's sales in the next ten years, the era  
23 of surplus natural gas at unrealistically low prices  
24 will come to an end. As pipelines reach their capacity,  
25 the large volume of "surplus" gas now sold at bargain  
26 prices will, no doubt, be diverted to more lucrative  
27 markets or otherwise be required to pay its way by com-  
28 manding higher prices. A survey included in the joint  
29 submission of the Canadian Western Natural Gas Company  
30 in Calgary and North-Western Utilities Limited in  
Edmonton before the Borden Commission, predicted greater







1  
2 competition for gas supplies by exporters. Higher costs  
3 of producing and distributing in the future will likely  
4 make gas less attractive to industries than coal.

5 In support of the foregoing statements, already  
6 signs of correction are evident. Pipeline companies  
7 have had to raise wellhead prices and escalator clauses  
8 are in effect. In Alberta, the year 1959 saw substantial  
9 increases in the price of gas to many industries and power  
10 generation stations.

11 Under similar conditions in the United States,  
12 coal is making a strong comeback, particularly in the  
13 field of power generation.

14 We believe the realization that gas is a "superior  
15 fuel" and should be reserved for "superior" heating  
16 purposes and specialized processes will certainly curtail,  
17 if not prohibit, the use of gas under boilers in many  
18 installations. The Federal Power Commission in the United  
19 States has given concrete evidence that it feels that  
20 the time has already arrived for such action. In a 1959  
21 decision, the F. P. C. issued an order denying natural  
22 gas service to Consolidated Edison Company, New York,  
23 for boiler fuel purposes.

24 Subsequently, the Third Court of Appeal in  
25 Philadelphia set aside the F. P. C.'s order on the  
26 basis that the Commission overstepped its authority and  
27 was acting in a "conservation role" in which it had no  
28 jurisdiction. While the order was set aside on a  
29 technicality, the fact remains that the government-  
30 appointed Federal Power Commission has clearly indicated  
it feels the time has arrived for concrete action to







1  
2 curtail the use of gas in certain major installations.  
3 When such conditions become prevalent, the coal and gas  
4 interests are visualized more in the line of complemen-  
5 tary, rather than competitive, industries.

6 The constant discovery of new chemical processes  
7 and technological break-throughs have resulted in the  
8 continual expansion of industrial minerals and other natural  
9 resources and this process appears to be accelerating.  
10 In the line of coal, a recently announced process by which  
11 non-coking coal can be made to coke could rapidly upgrade  
12 the Lethbridge deposits and broaden the market horizon  
13 to include the steel industry. The new process is the  
14 basis of recently disclosed plans for a 3.5 million dollar  
15 plant at Kemmerer, Wyoming.

16 I might interject that the analysis of coal  
17 in Kemmerer deposits are very similar to the analysis  
18 of the Lethbridge coal.

19 THE CHAIRMAN: Including the moisture?

20 MR. O'CONNELL: Yes, sir.

21 Thus, new fields are constantly being opened  
22 up, any one of which can completely change the future  
23 prospects of the coal industry. With the tempo of  
24 research on coal, especially in the United States,  
25 being accelerated, announcements of new discoveries and  
26 processes can be expected at more frequent intervals.

27 The increasing demand for electrical energy  
28 will have its repercussions in the coal industry. The  
29 first phase, whereby power plants are located on top of  
30 strippable coal seams, is already in progress. When  
available strip coal has been earmarked for established,





1  
2 or projected additions to generating stations, the  
3 second phase of using underground coal will receive atten-  
4 tion. Again, looking to the United States for indications  
5 of the trend, we find underground mines producing coal  
6 in large tonnages for electric power generation with 1959  
7 figures rising by 15 per cent over the previous year and  
8 an estimated further 15 per cent increase to 186 million  
9 tons in 1960. In view of the unanimous predictions of  
10 experts, a steady increase in electrical energy require-  
11 ments, coupled with proof of the already-established large  
12 scale demand for coal for this purpose in the United  
13 States, it is realistic to expect the same trend to soon  
14 become evident in Canada.

15 As industrial tonnage becomes available, it will  
16 be possible for coal mining companies to take advantage  
17 of "continuous miners" and other companion machines,  
18 especially designed for high speed production of small  
19 coal. The output per man day will rise materially,  
20 thus further enhancing coal's competitive position.

21 V. Various Advantages of Retaining the Coal Industry in  
22 Southern Alberta.

23 We submit that the coal industry is a valuable  
24 asset to southern Alberta which should be retained and  
25 advance herewith a few of the major reasons for such  
26 views.

27 The coal mining industry is one of the largest,  
28 if not the largest, single employer of men in southern  
29 Alberta during that time of year when unemployment is a  
30 major problem. With senior governments so concerned as  
to pay 75 per cent of the cost of winter-works programs,







1  
2 it would appear that assistance to the coal industry,  
3 which permanently fulfills such a role, is worthy of  
4 consideration. The amount of money paid out in the form  
5 of unemployment benefits in the area is materially reduced  
6 by the presence of this long established winter-works  
7 industry. The fact that assistance will be required for  
8 but a few years makes granting such assistance even more  
9 attractive.

10 The industry employs many agricultural workers  
11 from small farms during their off season, thus supple-  
12 menting the income of a group which otherwise would have  
13 a difficult time. Provision of this employment forestalls  
14 migration of the workers into the city, thereby averting  
15 further complication of the urban unemployment picture.

16 The movement of large tonnages of coal from  
17 the mines contributes materially to railway freight traffic,  
18 thus indirectly creating employment for another sector  
19 of the working population. The movement of the majority  
20 of the coal from southern Alberta fields at a time when  
21 other freight shipments are at a low ebb again provides  
22 employment when it is most needed.

23 One of the major advantages of retaining the coal  
24 industry will not be fully realized for another two or  
25 three years, but it is of such importance as to warrant  
26 special mention. It is as a competitive source of energy.  
27 As energy costs rise, it will be of utmost importance to  
28 any area to have alternate sources of energy. To allow  
29 one of the major sources of supply to disappear from the  
30 scene would, to a large extent, remove the competitive  
aspect. One of the major attractions of southern Alberta





1  
2 for industry is low fuel costs. While these will rise  
3 as predicted by the experts, the presence of competitive  
4 fuels will tend to temper such increases in much the  
5 same manner as competitive transportation systems tend to  
6 stabilize their rates. In the same manner that competitive  
7 transport rates are a factor in attracting industries,  
8 so is the presence of competitive fuels. For this reason  
9 the retaining of the coal industry in southern Alberta is  
10 of major importance.

11 The Lethbridge area with its vast reserve of  
12 700 million tons of coal and necessary water for  
13 cooling purposes will be a logical location for a large  
14 power-generating station when energy requirements increase.  
15 Therefore, maintenance of the industry, with its valuable  
16 assets in the form of an established cleaning plant and  
17 developed mine and crew of specially certificated men,  
18 appears most wise. The plant and underground development  
19 as it now stands represents an asset of over \$1 million  
20 as an operating concern. The loss of this industry when  
21 recovery of markets appears relatively close at hand would  
22 be a serious waste of assets. The obtaining of the spec-  
23 ialized and certificated working force necessary for re-  
24 establishment of the industry would present a major  
25 problem and involve high costs and a considerable time  
26 delay.

27 From a national defence point of view, the  
28 retention of the present coal industry appears most wise.  
29 In the minds of those in authority, world conditions are  
30 such as to warrant the expenditure of hundreds of  
millions of dollars per year on defence. Under such







1  
2 conditions, the retention of a healthy fuel and energy  
3 picture on the home front is of utmost importance. We  
4 submit that, should another emergency arise, the coal  
5 industry would again be called upon to provide fuel and  
6 energy in substantial amounts. This can only be done if  
7 the present small remaining coal industry is kept intact.

8 The assistance necessary to hold the present  
9 western industry through the lean years ahead might  
10 well be measured in terms of one or two fighter planes or  
11 missiles a year (which are, in many cases due to the  
12 rapidly changing picture, obsolescent before they become  
13 fully operational). When thought of in this light, the  
14 relative advantage of holding the coal industry for  
15 defence purposes alone is apparent.

16 Again, from the national point of view, it would  
17 not appear wise to disrupt the orderly production of an  
18 almost inexhaustible material resource such as coal on  
19 which the country in the near future must rely for increas-  
20 ing amounts of energy, while temporary low-cost competitive  
21 fuels capture more markets than are necessary for their  
22 profitable operation.

23 The underground section of the industry has  
24 been drastically reduced in size until only a bare nucleus  
25 is in existence. In the main, the continued operation  
26 of the remaining companies is indicative of their relative  
27 strength, efficiency, flexibility and a preference for  
28 their products. In short, those in existence represent  
29 the most hardy members of the one-time large industry  
30 and therefore are the operations which will give maximum  
returns for assistance rendered. The fact that only a







1  
2 bare nucleus remains points up the urgency of the situ-  
3 ation.

4 VI Recommendations

5 For those reasons set forth in this brief,  
6 we strongly recommend to the Commission that the govern-  
7 ment of Canada be urged to render such assistance as may  
8 be necessary to maintain the present existing nucleus of  
9 the coal industry in western Canada, and, in particular,  
10 that in the Lethbridge area. We feel assistance can best  
11 be given in the form of establishing or earmarking for  
12 the industry the necessary basic tonnages that will allow  
13 the operations to continue on a "break-even" basis  
14 through the present difficult period. This might well  
15 be accomplished through subsidy, subventions or the  
16 designation of certain specified markets for coal.

17 We suggest that the Dominion Coal Board would  
18 appear to be the logical agency to work out the details  
19 as to the amounts and location of such tonnages, together  
20 with other administrative details required to implement  
21 this recommendation.

22 We appreciate the opportunity which has been  
23 afforded to present this brief to the Commission.

24 All of which is respectfully submitted.  
25  
26  
27  
28  
29  
30





1  
2 MR. O'CONNELL: Now sir, with your indulgence  
3 there have been some questions asked regarding the attitude  
4 towards provincial government participation. In June  
5 of 1957 the Alberta Chamber of Commerce, of which the Lethbridge  
6 Chamber is a member, worded this declaration of  
7 coal policy to the Alberta government and passed these  
8 resolutions and Lethbridge, of course, subscribes to them.

9 Now, sir, I could leave this with you.

10 THE CHAIRMAN: Will you please read it.

11 MR. O'CONNELL: I will read it into the record,  
12 then. This coal policy declaration was presented to the  
13 Alberta government in November of 1957.

14 COAL POLICY DECLARATION

15 The Alberta Associated Chambers of Commerce  
16 and Agriculture recognize that the coal industry of Alberta  
17 has been and will continue to be an important factor in the  
18 industrial life of the province. The coal reserves of  
19 Alberta constitute an important natural resource and energy  
20 reserve. We therefore urge that the joint federal and  
21 provincial coal research program be enlarged to meet the  
22 existing situation, with particular emphasis being placed  
23 on a greater use of the by-products of coal, coupled with  
24 new and improved methods of mining, and the enlargement of  
25 markets for Alberta coal.

26 We commend the work that has been done in an  
27 effort to enlarge markets for Alberta coal, and the expan-  
28 sion of laboratory and pilot plant facilities devoted  
29 to this study, and urge that an enlarged research program  
30 be expedited, with the assistance of the provincial and  
federal governments and industries concerned.







## COAL INDUSTRY

WHEREAS the markets for Alberta coal have been diminishing for some time; and

WHEREAS the situation in this industry has recently become critical with the closing of some of our mines, with further closings imminent; and

WHEREAS this Association is deeply concerned about the future of the industry;

THEREFORE be it resolved that the federal and provincial governments be requested to consider further assistance to the coal mining industry so that it can continue as a producer of essential fuel.

### Suggested Means by which Industry can be Assisted:

1. Fullest assistance to Alberta Research Council.

2. Prohibition of use of natural gas for inferior purposes and sales at less than full cost of production.

3. Encouragement of export to Orient by creation of bulk loading facilities at Vancouver, which has, of course, been accomplished.

4. Assistance to coal used for thermal power.

### METHODS BY WHICH GOVERNMENT COULD ASSIST THE COAL INDUSTRY

## COAL EXPORT

An existing order in council provides for subvention assistance on western coal for export from Pacific coast ports up to \$2.25 per net ton which is a commendable and satisfactory situation.

To take full advantage of this subvention assistance,





1  
2 a bulk loading terminal is required at Vancouver, B. C.  
3 At the present time, the nearest satisfactory loading  
4 point is at Portland, Oregon, which adds considerably  
5 to the transportation cost.

6 It is suggested that the dominion government  
7 be urged to create this facility at an early date. Such  
8 terminal would be available for the handling of other  
9 commodities such as salt, sulphur, potash, etc.

#### 10 THERMAL POWER

11 The demand for electrical energy in the four  
12 western provinces is increasing at unprecedented rates;  
13 in one case as much as 20 per cent per annum, and it  
14 appears that in certain areas there is a very definite  
15 need for thermal plants to carry base loads.

16 To speed up Canadian industrial development and  
17 to increase the market for Canadian coal, the industry  
18 recommends that encouragement be given to power producing  
19 companies to use underground mined coal for new steam  
20 raising facilities by such inducements as may be found  
21 practical, such as accelerated depreciation, remission  
22 of taxes or other financial assistance for a limited  
23 period.

#### 24 NATURAL GAS

25 The natural gas industry is presently selling  
26 gas to industrial consumers at prices below the cost of  
27 acquisition and transportation to achieve quick volume.  
28 At the same time, domestic consumers are being charged  
29 increased prices to recoup losses incurred thereby.  
30 Coal is thus being driven out and will continue to be  
driven out of long-established markets until natural gas  
can upgrade its sales and operate at high load factor.







1  
2           The coal industry believes this to be unfair  
3 competition and that such policy is most detrimental to  
4 the national interest.

5           It is therefore recommended to the provincial  
6 and federal governments that appropriate action be taken  
7 which will prohibit sales by the gas industry either  
8 for resale or for direct consumption which drive out  
9 competing fuels because the charges are below actual  
10 cost plus a fair proportion of fixed charges.

11           It is interesting to note from our notes of  
12 that meeting with the cabinet that the Premier said that  
13 he felt the provincial government would, in the near  
14 future, be forced to prohibit further use of natural  
15 gas for inferior purposes such as steam raising in elec-  
16 tric power plants. In commenting on the suggestion  
17 regarding assistance to coal used with thermal power,  
18 Mr. Manning seemed quite interested in this proposal and  
19 the accompanying explanations. He took some notes on  
20 the matter but did not commit himself other than to say  
21 with the gas situation moving as it is, thermal power  
22 production is assuming larger proportions every day.

23           The reason for addressing ourselves to recom-  
24 mendations for the dominion government action is because  
25 this is a Commission appointed by the dominion government  
26 but I thought the notes would be of interest to you.

27           THE CHAIRMAN: Yes.

28           MR. O'CONNELL: May I also introduce  
29 Mr. L. Stone who is a member of our committee in  
30 the Lethbridge Chamber.

          THE CHAIRMAN: I was wondering to what extent







1  
2 is the capacity of gas being used today?

3 MR. O'CONNELL: I am not in a position to  
4 answer that question. I don't know if Mr. Livingstone  
5 is.

6 THE CHAIRMAN: We can get it somewhere else.  
7 Now, I was wondering whether you fell in with the  
8 suggestion that has been made that it would be well to  
9 try to enable coal to meet its local market, which one  
10 could consider more or less the natural market.  
11 That is, the one that it would look to in the first  
12 instance.

13 MR. O'CONNELL: Do you mean such as city  
14 government power plants, and that kind of thing?

15 THE CHAIRMAN: No. Here we have coal in  
16 Lethbridge - perhaps I may first ask you: To what  
17 extent are the mines operating today? How many mines  
18 are there?

19 MR. LIVINGSTONE: Just the one large one, sir.

20 THE CHAIRMAN: What is the capacity of prod-  
21 uction?

22 MR. LIVINGSTONE: About 1200 tons a day.

23 THE CHAIRMAN: How many days a year do you  
24 work?

25 MR. LIVINGSTONE: During the summer, from  
26 April say to August we operate probably at about 20  
27 per cent time, with about half crew. In the winter we  
28 operate practically full time.

29 THE CHAIRMAN: How many days on the average do  
30 you work throughout the year?

MR. LIVINGSTONE: I would say, averaging it





1  
2 out, to about three days a week.

3 THE CHAIRMAN: 150 days?

4 MR. LIVINGSTONE: About that, yes. It varies  
5 on the weather, of course,--very strongly with our mines.

6 THE CHAIRMAN: What has your production been?

7 MR. LIVINGSTONE: Our production has been around  
8 80,000 tons. It has been up, of course, 150,000 before  
9 that. When we had two mines it was up around 300,000.

10 THE CHAIRMAN: Where was that 80,000? That  
11 would be the average say for the last two or three years?

12 MR. LIVINGSTONE: Yes.

13 THE CHAIRMAN: And where has it been marketed?

14 MR. LIVINGSTONE: All the way from Victoria to  
15 northern Ontario, sir.

16 THE CHAIRMAN: How much did you ship to northern  
17 Ontario?

18 MR. LIVINGSTONE: Oh, about, I would say,  
19 around 12,000, 13,000 tons, sir.

20 THE CHAIRMAN: And over how many years have you?

21 MR. LIVINGSTONE: We did not enter the Ontario  
22 market until just last year. One of the other mines  
23 which sold most of the coal down there went out of  
24 business and we were fortunate in taking over a lot of  
25 that business.

26 THE CHAIRMAN: That amounts to about 13,000  
27 - 14,000 tons a year?

28 MR. LIVINGSTONE: I would say that it did,  
29 within a thousand tons.

30 THE CHAIRMAN: And you have had that only  
for one year?







1  
2 MR. LIVINGSTONE: Yes, sir.

3 THE CHAIRMAN: So far.

4 MR. LIVINGSTONE: Yes, sir.

5 THE CHAIRMAN: Are you planning to have that  
6 this year too?

7 MR. LIVINGSTONE: We hope, sir.

8 THE CHAIRMAN: I mean -

9 MR. LIVINGSTONE: Yes, definitely. Yes, sir.

10 THE CHAIRMAN: What sort of industry is it?

11 MR. LIVINGSTONE: Well, it's for household  
12 heating, sir.

13 THE CHAIRMAN: Household?

14 MR. LIVINGSTONE: That is right.

15 THE CHAIRMAN: Northern Ontario?

16 MR. LIVINGSTONE: Yes, sir, Timmins and areas  
17 such as that. Up in that area.

18 THE CHAIRMAN: In competition with gas?

19 MR. LIVINGSTONE: Yes, sir. A lot of the  
20 household market right in the town has gone, but there  
21 are surrounding areas where the pipelines haven't got  
22 in.

23 THE CHAIRMAN: Doesn't reach.

24 MR. LIVINGSTONE: That is right, sir, and there  
25 is still quite a percentage left on the town but it has  
26 gone down about 50 per cent.

27 THE CHAIRMAN: They take the coal because it  
28 is cheaper?

29 MR. LIVINGSTONE: Apparently so, sir. Yes.  
30 We would assume that.

THE CHAIRMAN: It is surprising me. I was





1  
2 wondering if there was any other factor that would lead  
3 a town or community in northern Ontario to buy coal from  
4 Lethbridge. I do not want to imply any derogation  
5 from the significance of Lethbridge, but I mean I am  
6 referring now only to the distance.

7 MR.LIVINGSTONE: The subventions which are  
8 received down there play a major part.

9 THE CHAIRMAN: What is the amount that you  
10 receive on that?

11 MR. LIVINISTONE: It varies for the area.  
12 About \$3.50 a ton.

13 THE CHAIRMAN: \$3.50?

14 MR. LIVINISTONE: Yes, sir.

15 THE CHAIRMAN: What is your average production  
16 cost at the mine?

17 MR. LIVINGSTONE: For that grade coal, probably  
18 about \$6.00.

19 THE CHAIRMAN: And what is the freight rate?

20 MR. LIVINGSTONE: Again it varies. I will  
21 give you an average one. Probably about - without the  
22 subvention - around about \$11.00, and then the subvention  
23 brings that down.

24 THE CHAIRMAN: Brings it up to around \$20.00 a  
25 ton? The subvention is paid to the railway?

26 MR. LIVINGSTONE: About \$17.00, yes, sir.

27 THE CHAIRMAN: About \$17.00. That is distributed  
28 by an agent in, say, Timmins?

29 MR. LIVINGSTONE: Yes, sir.

30 THE CHAIRMAN: And does he handle coal in any  
other way than merely distributing it? Does he screen





1  
2 it or anything of that sort?

3 MR. LIVINGSTONE: No, sir, we do that at the  
4 mine.

5 THE CHAIRMAN: And then there is only the  
6 question of the expense of delivering and his profit?

7 MR. LIVINGSTONE:---Yes,--sir.

8 THE CHAIRMAN: What generally is the retail  
9 price there?

10 MR. LIVINGSTONE: Around \$21.00. It varies  
11 but that would be the normal.

12 THE CHAIRMAN: And what is gas? Gas is not  
13 available outside the town, I suppose?

14 MR. LIVINGSTONE: No, sir, not down there.

15 THE CHAIRMAN: Is propane used at all around  
16 Timmins?

17 MR. LIVINGSTONE: To a certain extent, but not  
18 as much as it is in Alberta.

19 THE CHAIRMAN: Is oil used at all?

20 MR. LIVINGSTONE: Oil is used more than propane,  
21 I would say.

22 THE CHAIRMAN: In the country?

23 MR. LIVINGSTONE: Yes. I am not fully conver-  
24 sant with that as to complete details, but it is next  
25 to coal the major -

26 THE CHAIRMAN: Is there any probability of  
27 gas being extended to rural areas?

28 MR. LIVINGSTONE: It may be extended a bit  
29 but not very much. That is a pretty difficult country  
30 to work in down there.

THE CHAIRMAN: And the cost resulting would not







1  
2 affect your better position?

3 MR. LIVINGSTONE: No. We feel there will be  
4 a hard core of market.

5 THE CHAIRMAN: Is that the only market in  
6 Ontario?

7 MR. LIVINGSTONE: The only major one. We ship  
8 a few cars into isolated points down further south, but  
9 it amounts to very little.

10 THE CHAIRMAN: It is not a material thing at  
11 all?

12 MR. LIVINGSTONE: It is not a material thing  
13 at all.

14 THE CHAIRMAN: Do you ship into Manitoba?

15 MR. LIVINGSTONE: Yes. Not a great deal  
16 there because that is getting into your logical area  
17 for your Estevan coals.

18 THE CHAIRMAN: You call it "logical", that is  
19 what I mean by the word "natural". Do you sell to  
20 Saskatchewan?

21 MR. LIVINGSTONE: Yes, sir.

22 THE CHAIRMAN: To what extent?

23 MR. LIVINGSTONE: I would say - trying to recall  
24 the figures in my mind, I would say probably to the extent  
25 of 20 per cent of our production - 25 per cent.

26 THE CHAIRMAN: What is the nature of the use?  
27 Domestic?

28 MR. LIVINGSTONE: Yes, sir.

29 THE CHAIRMAN: Much the same situation in  
30 Timmins?

MR. LIVINGSTONE: Very much.





1  
2 THE CHAIRMAN: How many agencies have you in  
3 Saskatchewan?

4 MR. LIVINGSTONE: Well, we just have there what  
5 we call line yard companies. They are the grain companies  
6 who have the coal sheds in conjunction with their elevator.

7 THE CHAIRMAN: Oh, I see, the grain companies  
8 provide the coal sheds?

9 MR. LIVINGSTONE: Yes, and they are spotted  
10 all over the west.

11 THE CHAIRMAN: Are they exclusive to you or  
12 general agents?

13 MR. LIVINGSTONE: No, they are general agents  
14 to all domestic producers.

15 THE CHAIRMAN: That would be about 15 per cent  
16 of your total production that you would sell in Saskat-  
17 chewan?

18 MR. LIVINGSTONE: About 15 to 25. Let us  
19 say about 20 per cent.

20 THE CHAIRMAN: And then what is your Alberta  
21 sale?

22 MR. LIVINGSTONE: Our Alberta sale is fairly  
23 good. It is hampered by additional gas. The gas distribu-  
24 tion has advanced very greatly in southern Alberta and  
25 of course when we get up in northern Alberta we run into  
26 the Drumheller area.

27 THE CHAIRMAN: What per cent do you sell in  
28 Alberta? Just roughly.

29 MR. LIVINGSTONE: Oh, I would say about 15 -  
30 20 per cent, in there.

THE CHAIRMAN: That brings it up pretty near to







1  
2 50 per cent. Now the balance is in British Columbia,  
3 is it?

4 MR. LIVINGSTONE: Well, Ontario is in there.  
5 Yes, the rest is in British Columbia.

6 THE CHAIRMAN: Is it largely at the coast?

7 MR. LIVINGSTONE: Considerable amount of it  
8 is at the coast, sir, and through the Kettle valley.  
9 That is the south area of the province there, but mostly  
10 the coast.

11 THE CHAIRMAN: Have you coal competition there?

12 MR. LIVINGSTONE: Yes, very strong.

13 THE CHAIRMAN: Is your coal particularly well  
14 adapted to domestic use?

15 MR. LIVINGSTONE: We feel very much so. It  
16 is the highest, by government grading it is the highest  
17 grade domestic coal produced in western coal.

18 THE CHAIRMAN: That is the highest BTU's?

19 MR. LIVINGSTONE: The highest BTU and the  
20 grade on moisture content and other factors.

21 THE CHAIRMAN: I thought your moisture content  
22 was -

23 MR. LIVINGSTONE: It's about ten per cent. It's  
24 low.

25 THE CHAIRMAN: I thought it was more.

26 MR. LIVINGSTONE: No.

27 THE CHAIRMAN: So it is the desirable domestic  
28 use coal?

29 MR. LIVINGSTONE: Yes, it is. It can also  
30 be used for steam raising purposes as in the, for instance,  
the sugar factories in southern Alberta. They find it





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very suitable so this coal can be used in domestic,  
very definitely and can be used in steam raising and it  
is on that basis that we look to the future for its use.





1st.

1 THE CHAIRMAN: I was wondering what you had  
2 in mind when you spoke of inferior use of gas. You  
3 spoke of thermal power.

4 MR. O'CONNELL: Steam raising.

5 THE CHAIRMAN: Anything else?

6 MR. O'CONNELL: Perhaps the word "inferior" is  
7 a bit of a misnomer. We are thinking there of a different  
8 quality and use.

9 THE CHAIRMAN: I have the same view at the  
10 moment, that there are uses to which it could be put in  
11 terms of utilization, efficiency of use, efficiency of  
12 production, efficiency of creation of power.

13 MR. O'CONNELL: In other words, we think of it  
14 as complementary, rather than competitive within the  
15 next four or five years.

16 THE CHAIRMAN: What about space heating gener-  
17 ally? What would you use for that?

18 MR. O'CONNELL: I think it would take some  
19 research by competent authorities to determine the best  
20 use.

21 THE CHAIRMAN: Has any action been taken by the  
22 government of Alberta on your representations of 1957?

23 MR. O'CONNELL: Not to my knowledge, sir.

24 MR. LIVINGSTONE: The Research Council program  
25 has been enlarged. They have a new research building in  
26 which coal has a place. The boat loading facilities at  
27 the coast have been established. As to what part the  
28 provincial government played in that, I do not know.

29 THE CHAIRMAN: On the question of export, do  
30 you think that is a really dependable means of selling coal  
from Canada?

MR. LIVINGSTONE: To be very frank, I think  
there are better ways and better places where we could use







1  
2 coal close at home.

3 THE CHAIRMAN: There is no lack of coal in the  
4 east, is there?

5 MR. LIVINGSTONE: In Japan they are short of  
6 coking coal.

7 THE CHAIRMAN: Yes, but once trade is open with  
8 China, isn't it open to tremendous areas of coal deposits?

9 MR. LIVINGSTONE: Yes, and also of course they  
10 are in direct competition. This is in the steam section  
11 of the industry, which I am less acquainted with. But  
12 for instance, Australia is a very strong competitor for the  
13 Japanese market, as is the United States.

14 THE CHAIRMAN: I was going to ask you, what does  
15 the United States do, or what is it able to do in selling  
16 coal to Japan, say?

17 MR. LIVINGSTONE: I think that we sell coal to  
18 Japan simply because of our subventions, otherwise our  
19 price would not be competitive.

20 THE CHAIRMAN: I do not understand that there  
21 is any such thing as a subvention in the United States.

22 MR. LIVINGSTONE: I don't think there is.

23 THE CHAIRMAN: Therefore, they must rely  
24 entirely upon their costs of production and transportation.

25 MR. LIVINGSTONE: They have better mining con-  
26 ditions down there.

27 THE CHAIRMAN: Quite.

28 MR. LIVINGSTONE: Which gives them a lower cost.

29 THE CHAIRMAN: All I mean is, they are competing  
30 on purely economic conditions and considerations.

MR. LIVINGSTONE: That is correct.





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THE CHAIRMAN: And my information is they have a very high quality coal suitable for various purposes, including coking.

MR. LIVINGSTONE: Yes, they are beginning to feel they have not got too much of a surplus of coking coal.

THE CHAIRMAN: I was wondering how far you would feel that, and may I say I think you have given us an excellent submission, and you have analyzed the factors in a way that we are looking for.

What would you say? I assume you have given some thought to it, of the participation in any action to be taken to maintain a nucleus of the industry, what share should the province undertake as a general principle?

MR. O'CONNELL: I think the province has a large interest in the preservation of the mining industry, because as you have pointed out, the natural resources are vested in the right of the province.

THE CHAIRMAN: It would seem to follow that the primary interest is the local interest, the provincial interest, and then I would infer from that, that this is a problem in which all interest should in some way or other participate?

MR. O'CONNELL: Yes, we agree with that.

THE CHAIRMAN: If it is a maintenance policy over a period of uncertain years.

MR. O'CONNELL: Yes, we agree that this is of interest to all parties.

THE CHAIRMAN: And that the various interests should act on the basis of those interests.

MR. O'CONNELL: Yes, but in co-ordination of course.







1  
2 THE CHAIRMAN: Quite, in co-operation.

3 MR. O'CONNELL: Yes.

4 THE CHAIRMAN: And I would include in that,  
5 of course, the company and the men who are concerned in  
6 that industry, in its maintenance and in its preservation.

7 MR. O'CONNELL: Yes, sir. We mentioned with  
8 the assistance of the provincial and federal governments  
9 and the industries concerned.

10 THE CHAIRMAN: Yes. That is the first intimation  
11 we have had that any such view has been advanced in the  
12 provinces generally, not only in this province but in  
13 Nova Scotia.

14 MR. O'CONNELL: As a Chamber of Commerce, we  
15 are dedicated to the principle that the industries con-  
16 cerned can do a better job than government agencies,  
17 except in times of emergency, and we do regard this as  
18 an emergent period from which we will recover in four  
19 or five years.

20 THE CHAIRMAN: Have you a copy of that judgment  
21 that was given in the United States which you mentioned?

22 MR. O'CONNELL: We can get it for you, sir.

23 THE CHAIRMAN: I would like to have it for the  
24 reasoning involved and the experience of the United States  
25 in that question. That was along the view that gas  
26 should not be used for boiler fuel purposes.

27 Of course, I am only a layman, but it seems to  
28 me that that has always seemed to be good sense, that it  
29 was a waste of gas to use it for that purpose. If you  
30 are using only a small fraction of your gas potential  
in this province, you would have a difficult job in





1  
2 establishing a principle of that sort at this time.

3 MR. LIVINGSTONE: That is the crux of the  
4 whole problem right there, that during this period of  
5 surplus fuels, coal is in a most difficult position to  
6 help itself, because you can go right down to your  
7 lowest price and they can always go one lower, and to  
8 my mind that has been the thing which is frustrating the  
9 coal industry in trying to help themselves in many of  
10 these avenues.

11 THE CHAIRMAN: So last year is the first  
12 year that you availed yourself of the Dominion sub-  
13 ventions.

14 MR. LIVINGSTONE: We have shipped lesser  
15 amounts.

16 THE CHAIRMAN: That is the maximum of your  
17 shipments so far?

18 MR. LIVINGSTONE: Yes, sir, that is right.

19 THE CHAIRMAN: You were speaking, Mr. O'Connell,  
20 of the effect of the use of machines, high speed machines,  
21 and what percentage do you find of fines resulting  
22 from that mode of mining?

23 MR. O'CONNELL: I would have to refer to  
24 Mr. Livingstone again.

25 MR. LIVINGSTONE: It depends upon your coal  
26 seam, sir. You have a soft coal or a hard coal. I have  
27 asked the manufacturer of such machines if they would  
28 give an idea of what percentage they would give of minus  
29 2 inch coal, and they are unable to give us definite  
30 figures. However, they figure that probably we might  
count on 90 percent under 2 inch coal.





1  
2 THE CHAIRMAN: Ninety?

3 MR. LIVINGSTONE: Yes.

4 THE CHAIRMAN: But not under minus one-quarter?

5 MR. LIVINGSTONE: Again that depends upon the  
6 seam. I would say - and this is just a guess based on  
7 what the salesmen of the equipment have said - I would  
8 say that it would probably run around 30 per cent.

9 THE CHAIRMAN: What is the machine you use in  
10 Lethbridge?

11 MR. LIVINGSTONE: We have not any continuous  
12 miner machine now.

13 THE CHAIRMAN: I gained the impression that  
14 you had some.

15 MR. LIVINGSTONE: No, we say that if we were  
16 catering to a small size market, we could take advantage  
17 of the continuous miner.

18 THE CHAIRMAN: You have had no actual experience?

19 MR. LIVINGSTONE: No, sir, and we cannot until  
20 our demand for that size of coal increases, because the  
21 units cost around \$100,000 apiece.

22 THE CHAIRMAN: At what vertical depth do you  
23 mine?

24 MR. LIVINGSTONE: About 300 average, sir.

25 THE CHAIRMAN: Do you do it by way of slope or  
26 shaft?

27 MR. LIVINGSTONE: Shaft, sir.

28 THE CHAIRMAN: Is it room and pillar?

29 MR. LIVINGSTONE: Yes, sir.

30 THE CHAIRMAN: You spoke also of the head price  
of gas, the gas head price. I gather in some cases at







1  
2 least the gas well was owned by the line company, is that  
3 so?

4 MR. O'CONNELL: Do you mean like the Canadian  
5 Western Natural Gas Company?

6 THE CHAIRMAN: I do not know the names of any.  
7 For instance, the gas line conveying or carrier company,  
8 do they own gas wells as well?

9 MR. O'CONNELL: In some cases.

10 MR. LIVINGSTONE: In very few instances the  
11 larger gas producers may have an interest in the pipeline.  
12 However, for instance in large measure the producers of  
13 the gas are not the owners of the pipeline, sir.

14 THE CHAIRMAN: They are not?

15 MR. LIVINGSTONE: No.

16 THE CHAIRMAN: Any increase in price will have  
17 to be in the action of the owners and not the pipeline  
18 company?

19 MR. LIVINGSTONE: I think it is a matter of the  
20 law of supply and demand.

21 THE CHAIRMAN: Yes, but the pipeline companies  
22 have nothing to do with the setting of the wellhead price.

23 MR. LIVINGSTONE: They go out and contract with  
24 the various fields to buy.

25 THE CHAIRMAN: They affect it indirectly that  
26 way.

27 MR. LIVINGSTONE: A few years ago Trans-Canada  
28 bought gas at ten cents per thousand mcf, and the owners  
29 of the gas saw that there was a demand and raised their  
30 prices to thirteen cents.

THE CHAIRMAN: So the price the owner charges





1  
2 depends largely on the price that the distributors can  
3 get?

4 MR. LIVINGSTONE: That is right, and the demand  
5 for it. It just obeys the law of supply and demand. That  
6 is where we see a tremendous demand developing continent-  
7 wise and therefore the price would go up as in the United  
8 States. Some field prices are as high as thirty cents.  
9 Many of them are around twenty-one or twenty-two cents.

10 THE CHAIRMAN: What is this improvement, this  
11 process by which non-coking coal can be made to coke?  
12 Has that been clearly established?

13 MR. LIVINGSTONE: It was. I read that in  
14 a publication from an industry bulletin from the United  
15 States. They said there were two new processes, one was  
16 a company in Salt Lake City, the other one I forget the  
17 name of, but I can get it for you. They said they had  
18 two processes. Of course, they are not revealing the  
19 means of doing it, but they apparently have enough  
20 confidence in it to establish the three and one-half  
21 million dollar plant, and it is part of the general  
22 trend in the United States to become a little bit concerned  
23 about the amount of coking coal.

24 THE CHAIRMAN: I was going to suggest that was  
25 the urgency of it.

26 MR. LIVINGSTONE: Definitely.

27 THE CHAIRMAN: Is it a fact that the government  
28 pays 75 per cent of the cost of winter works?

29 MR. O'CONNELL: I think the dominion pays 50  
30 per cent and the provincial 25 per cent.

THE CHAIRMAN: Of the actual labour costs?







1  
2 MR. O'CONNELL: Of the cost of the projects to  
3 which they give approval.

4 THE CHAIRMAN: They subsidize building to that  
5 extent?

6 MR. O'CONNELL: Yes, sir.

7 THE CHAIRMAN: And that enures to the benefit  
8 of whom?

9 MR. O'CONNELL: The general economy. It means  
10 that people are employed and have a better feeling and  
11 have also money in their pockets.

12 MR. PETTIGROVE: Mr. Commissioner, that is  
13 just the labour cost, not material.

14 MR. O'CONNELL: That is right.

15 THE CHAIRMAN: They pay 75 per cent of the  
16 labour costs?

17 MR. O'CONNELL: Yes.

18 THE CHAIRMAN: Thank you. Have you anything,  
19 Mr. Gunn?

20 MR. GUNN: No, sir, it has been covered.

21 THE SECRETARY: Mr. Commissioner, I would like  
22 to call upon Mr. James J. Part of the city of Drumheller.  
23 His brief will become Exhibit 53 in the records.

24 ---EXHIBIT NO. 53: Brief of the City  
25 of Drumheller.  
26  
27  
28  
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30





SUBMISSION OF  
THE CITY OF DRUMHELLER

Appearances:

Mr. James J. Part, City Manager

Mr. E. A. Toshach, Mayor.

MR. TOSHACH: Mr. Commissioner, I would like to apologize. Mr. Part unfortunately cannot be here today, so that as mayor of Drumheller I am submitting our brief.

Before we begin, I would like to point out that in chart 3 there is a typographical error on the breakdown of assessment figures. On the chart it is 2.8, and it should be 2.6. Mr. Part, being the engineer, drew them up.

We respectfully beg your leave to limit our submission to section (e) of the terms of reference of the Royal Commission. We feel we are not qualified to deal with the other aspects of the inquiry.

In order to give you the background of coal mining in the Drumheller valley, we would like to quote excerpts from a letter of Mr. J. A. Dutton, Director of Mines for the Department of Mines & minerals of the provincial government dated January 9, 1960:

"Coal mining operations in the Drumheller valley commenced in 1911 when the Newcastle Coal Company opened a mine in the S. E. quarter of Section 9, Township 29, Range 20, W. of the 4th Meridian.





1  
2 "Since then, 136 more mines on both sides of the Red  
3 Deer river and its tributaries in this area have  
4 been opened. Of these 137 mines, only four large  
5 mines and four smaller ones at the end of December,  
6 1959, are in operation."

7 Might I interject here that the four smaller ones are  
8 practically non-existent and they would hardly qualify  
9 as a mine at all.

10 "The spread of oil and natural gas consumption is  
11 responsible for the gradual deterioration of the  
12 coal industry in Drumheller and its surrounding  
13 districts to such an extent that while in 1946,  
14 during which 1,946,170 tons of coal were produced  
15 from 24 mines employing 2,116 men, only 590,860  
16 tons of coal were produced in 1958 from 11 mines  
17 employing 695."

18 Please note figures for 1959 were not available  
19 to us as yet, but as three mines have since closed, it is  
20 evident that the employment will be considerably lower.  
21 We would also point out that on the average in 1946,  
22 the men worked twelve months of the year, while in 1958  
23 they were lucky to work full time six months of the year.  
24 We attach copies of Mr. Dutton's letter.

25 We feel that this is the crux of the matter in  
26 regard to section (e). It would be oversimplifying to  
27 state there was only half of 695 men working in 1958,  
28 since they were only working half time. Their family  
29 expenses continue to rise and while there were 695 men  
30 employed, they were living at a much lower standard of  
living than 2,116 men working in 1946.







A further way in which we could examine the effects of the gradual cessation of coal mining in the area would be to examine the population in the area. By way of explanation, the city of Drumheller is surrounded by hamlets: Nacmine, Newcastle, Midland, Rosedale, Aerial, Wayne, Cambria, Lehigh, Willow Creek and East Coulee.

These are administered by the provincial government in a loose association called the Local Improvement District No. 42.

In graph 1 attached, we have amalgamated the population of the L. I. D. #42 with that of Drumheller to show the total impact of the slump in domestic coal. We have plotted the population of the area in comparison to Red Deer. We chose Red Deer because the population figures of the city of Drumheller were very similar in 1931.

<u>Population of</u>	<u>Drumheller</u>	<u>Red Deer</u>
<u>Year</u>		
1921	2,499	2,653
1931	2,987	2,662
1941	2,748	3,448
1951	2,601	7,575
1959	2,650	17,593

It is obvious from graph I that Drumheller and its environs have not developed as has Red Deer, but rather declined because of problems of the coal industry. The population growth of Red Deer is not exception in the province of Alberta, and we would submit the population growth of Calgary by way of further reference.





Population of Calgary

Year

1911	43,704
1921	63,305
1931	83,761
1941	88,904
1951	129,060
1959	218,418

This rate of growth has not been reflected in Drumheller or the surrounding district.

In this "best of all possible worlds" the average man seems unable to gather any real assets except his home. If we are to assume that his home is his principal asset, we should examine the assessment in the area affected to ascertain the economic consequences of the gradual slump of coal mining.

We respectfully refer you to graph #2 attached, where the assessments of the Drumheller area and the city of Red Deer were plotted. You will note the phenomenal rise of assessment in Red Deer. We feel that this rise is not all new building, but rather appreciation in value of existing buildings to a certain extent. You will see that the assessment in the Drumheller area has decreased. If you will refer to chart 3 attached giving a breakdown of the assessment figures, you will see that assessment in the city has increased slightly, while that in the L. I. D. is double that of the city of Drumheller, it is obvious that the land and building holdings of a resident in the L. I. D. #42 have been practically wiped out.







1  
2 This is, of course, of grave concern to all  
3 of us as this group is gradually being liquidated finan-  
4 cially through these factors:

5 1. LOSS OF JOB OPPORTUNITIES - Due to his age,  
6 the miner is difficult to assimilate in other jobs.

7 2. PART-TIME NATURE OF HIS WORK - The mines  
8 in this area are working with greatly reduced payrolls  
9 for approximately five or six months of the year, sub-  
stantially reducing his total income.

10 3. HIS ASSETS ARE DIMINISHING - The assessment  
11 figures point out the devaluation of his home which  
12 usually represents his entire savings.

13 Considering the above points of our brief,  
14 it is self-evident the dwindling coal market has definitely  
15 and unfavourably affected this entire community, and unless  
16 some steps are taken by the federal government, the further  
17 drastic diminution of the coal industry in this area with  
18 its additional hardships on all concerned, is only a  
matter of time.

19 Respectfully submitted for your consideration  
20 on behalf of the city of Drumheller and its environs by  
21 the mayor and city council, this 22nd day of  
22 January, A. D. 1960.

23 E. A. Toshach

24 Mayor.

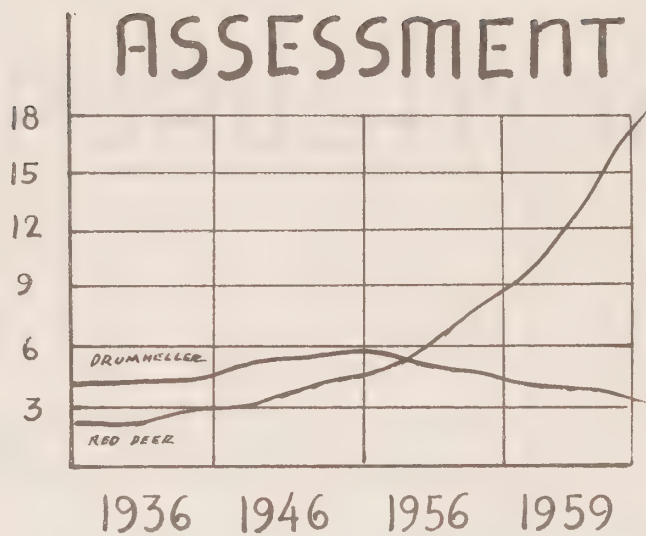
25 Graph and chart figures are compiled from provincial  
26 statistics.





## GRAPH #2

MILLIONS  
OF DOLLARS



## CHART #2

L.I.D. & CITY  
RED DEER

4.4	4.4	4.1	3.9
	3.2	11.7	17.0
36	46	56	59

## CHART #3

*Breakdown of Assessment Figures*

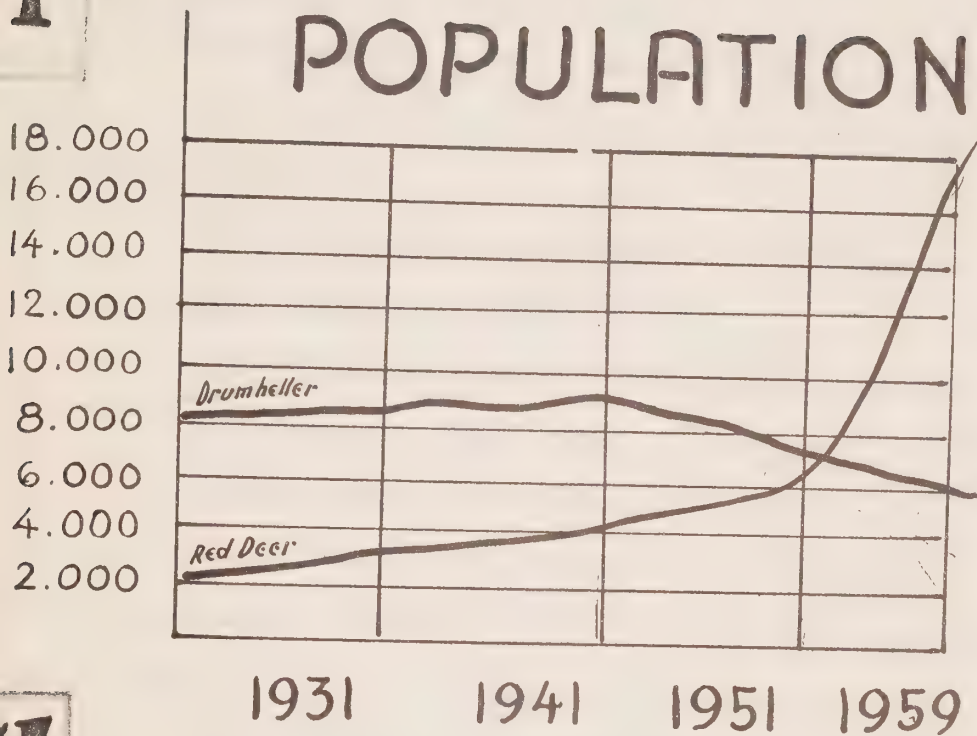
L. I. D.  
CITY

2.8	2.6	1.7	1.3
1.6	1.8	2.4	2.6
36	46	56	59





#1  
GRAPH



#1  
PART

## Drumheller Valley & Red Deer

1931 1941 1951 1959

DRUMHELLER  
L.I.D.  
DEER

8557	9237	9506	6138
2662	3448	7575	17600







1  
2 THE CHAIRMAN: Now, I was wondering first  
3 what the population of Drumheller was in 1911?

4 MR. TOSHACH: In 1911, it would be very small.  
5 I would imagine about 1,000 people.

6 THE CHAIRMAN: What were they doing?

7 MR. TOSHACH: Oh, in 1911, pardon me, sir.  
8 Practically nothing.

9 THE CHAIRMAN: So it opened up on mines?

10 MR. TOSHACH: Yes, sir.

11 THE CHAIRMAN: It has continued on mines?

12 MR. TOSHACH: Yes, sir.

13 THE CHAIRMAN: No other industry?

14 MR. TOSHACH: No, sir. We are surrounded by a  
15 a very profitable farming district which does some trade  
16 in the area. Our main source is with mining.

17 THE CHAIRMAN: What is the total of coal  
18 reserves which you estimate to be in that neighbourhood?

19 MR. TOSHACH: Well, sir, I would have to refer  
20 you to someone from the D. C. O. A. I would not be  
21 qualified to answer that.

22 THE CHAIRMAN: You have 136 mines?

23 MR. TOSHACH: Yes, sir.

24 THE CHAIRMAN: And 128 of them, according to  
25 this first paragraph, have been closed?

26 MR. TOSHACH: Yes, sir.

27 THE CHAIRMAN: What sort of mines were they?  
28 What were they producing? Why did they close?

29 MR. TOSHACH: Well, sir, I think it is like  
30 any other business venture, it is survival of the fittest  
and some of these were started up and as the representatives





1  
2 from the D. C. O. A. explained to you, it is easier to  
3 dig down from the valley bed than it is to go up top and  
4 dig down.

5 THE CHAIRMAN: It is all underground work?--

6 MR. TOSHACH: It is all underground work, yes,  
7 sir.

8 THE CHAIRMAN: But evidently these 128 mines  
9 could not have amounted to a great deal or they wouldn't  
10 have gone out of business. That is in the years when  
11 there was no gas and no oil. That is no gas spread  
12 all over the province as it is today.

13 MR. TOSHACH: Well, sir, I mean in any business  
14 venture there will be some that will succeed and some  
15 that won't succeed but the one closed, there will be  
16 another to replace it providing the market is there.

17 THE CHAIRMAN: Within what radius of the centre  
18 of your present town - is it a town? The town of  
19 Drumheller?

20 MR. TOSHACH: It is a city. We should be a  
21 town.

22 THE CHAIRMAN: A city?

23 MR. TOSHACH: I don't know how that happened.

24 THE CHAIRMAN: Within what radius would those  
25 mines lie, the total of 137 of them?

26 MR. TOSHACH: Well, I would say approximately  
27 15 miles up and down the valley with Drumheller being  
28 in the centre of it.

29 THE CHAIRMAN: Seven or eight miles north and  
30 seven or eight miles south?

MR. TOSHACH: Yes, sir. Only the valley runs  
east and west.







1  
2 THE CHAIRMAN: East and west, makes no difference.  
3 What was the effect of the unemployment on the social  
4 conditions. I suppose when the mines closed, the men  
5 were absorbed or they went away?

6 MR. TOSHACH: No, sir. I am afraid that in  
7 the mine which has closed last year - this is an astound-  
8 ing thing and it is difficult to explain with graphs,  
9 that is why we brought these things. I can only explain  
10 it when you see it, but there seems to be very close  
11 attachment with the area. I must admit some of them  
12 are of foreign extraction, sir, and they have built up  
13 a community where they can speak their own language.  
14 Mind you, they can all speak English fairly well and  
15 even if they lose their jobs and you offer to move them  
16 out, and this can be done, they don't want to go, sir.

17 THE CHAIRMAN: Now that is what has taken place  
18 within your memory of the situation?

19 MR. TOSHACH: Yes, sir.

20 THE CHAIRMAN: What you have observed?

21 MR. TOSHACH: Yes, sir.

22 THE CHAIRMAN: During what period of time?

23 MR. TOSHACH: Well, I have been around there for  
24 31 years.

25 THE CHAIRMAN: Interested in the civic adminis-  
26 tration?

27 MR. TOSHACH: No, I have only been mayor for  
28 three years.

29 THE CHAIRMAN: You have been a citizen there?

30 MR. TOSHACH: Yes, definitely.

THE CHAIRMAN: Have you been interested in the





1  
2 coal business?

3 MR. TOSHACH: No, I am not in the coal business  
4 at all.

5 THE CHAIRMAN: That would take you back to  
6 1929. Well, does this tendency to be anchored to that  
7 community extend back to that time?

8 MR. TOSHACH: Well, I think you will find, sir,  
9 when they mention these closings of mines there would  
10 be another one open up, sir. I would hesitate to say  
11 that there were 137 operating at once. I think this  
12 would be a continuing fact.

13 THE CHAIRMAN: They went from one to the  
14 other?

15 MR. TOSHACH: Yes, sir.

16 THE CHAIRMAN: They couldn't have been operating  
17 very long.

18 MR. TOSHACH: Well, that again, sir, I would  
19 have to refer you to the D. C. O. A.

20 THE CHAIRMAN: How many would you say at the  
21 most have operated at the same time?

22 MR. TOSHACH: I am afraid, sir, that I would  
23 have to refer you - would you like me to get that  
24 information for you, sir?

25 THE CHAIRMAN: Well, you would have to get it  
26 from an old resident.

27 MR. TOSHACH: Somebody must have it on file  
28 somewhere. We were particularly interested with section  
29 (e), you see. I would say the highest number of mines,  
30 sir, was 27 in 1929.

THE CHAIRMAN: Let's take those because they





1  
2 would have been in existence probably when you went  
3 there or when you became interested in the city in 1929,  
4 that same year -

5 MR. TOSHACH: That is when I was born, sir.

6 THE CHAIRMAN: I was judging your age from  
7 your wisdom.

8 MR. TOSHACH: Thank you very kindly, sir. I  
9 wish more people agreed with you.

10 THE CHAIRMAN: I was wondering - Now take when  
11 you became of the age of competence in judgment, better  
12 than wisdom perhaps - how long were those mines operating  
13 in a year? How many months?

14 MR. TOSHACH: Well, sir, before the war they  
15 would operate on an average of four to five months of  
16 the year.

17 THE CHAIRMAN: And what would the men do in  
18 the eight or seven months during which they were not  
19 mining?

20 MR. TOSHACH: Actually it is astounding. They  
21 grew tremendous gardens and lived off them.

22 THE CHAIRMAN: None of them farmers?

23 MR. TOSHACH: Yes, they would pick up all the  
24 extra work they could do.

25 THE CHAIRMAN: What would be the percentage of  
26 farmers who would be working these mines?

27 MR. TOSHACH: Not very large, sir.

28 THE CHAIRMAN: Do you know that from personal  
29 knowledge?

30 MR. TOSHACH: Yes, sir, because I mean as I  
say I have lived there all my life.







1  
2 THE CHAIRMAN: How many mines were within the  
3 range of two miles from Drumheller?

4 MR. TOSHACH: Oh, at different periods of time  
5 I would say up to about seven or eight.

6 THE CHAIRMAN: And you say that those were mined  
7 by men whose work was mining solely?

8 MR. TOSHACH: Yes, sir. They would pick up  
9 odd jobs, but nothing definite.

10 THE CHAIRMAN: Because my information was that  
11 in many cases it was farmers who came to Drumheller to  
12 work during the winter.

13 MR. TOSHACH: That happens to a certain extent,  
14 sir, but not much, as I recall it from personal experience.

15 THE CHAIRMAN: Is there any means of getting  
16 that information?

17 MR. TOSHACH: I don't know, sir. I will  
18 endeavour to, though.

19 THE CHAIRMAN: Of course, that makes some  
20 explanation of the reason why there has been no social  
21 upheaval when some of these 128 mines closed.

22 MR. TOSHACH: I think if you come out and  
23 look at some of the areas -

24 THE CHAIRMAN: Yes. We are not going to miss  
25 that opportunity. We have looked forward to it for the  
26 last two or three months. Now what today is your  
27 idleness there? I won't call it unemployment, I will  
28 call it idleness. How many idle people have you who  
29 must be supported in some way?

30 MR. TOSHACH: Well, as I recall it, sir, the  
last figure of the unemployment there, our local office,





1  
2 was something in the neighbourhood of 750 to 800 men.

3 THE CHAIRMAN: Is the city doing anything towards  
4 relief?

5 MR. TOSHACH: Yes, sir.

6 THE CHAIRMAN: To what extent?

7 MR. TOSHACH: Well, we endeavour to do as much  
8 of our projects as we can during the summer. Now, this  
9 sounds backwards. You have your winter help program.

10 THE CHAIRMAN: Well, all I am asking is what  
11 do you actually do in the way of enabling these people  
12 to live?

13 MR. TOSHACH: Well, any type of project system,  
14 sewers, or anything like that, we always insist -

15 THE CHAIRMAN: What is the concreteness of what  
16 you have done? How much money have you spent? What  
17 industry, if any, have you been successful in establishing?

18 MR. TOSHACH: Oh, well, sir, we have - This is  
19 a source of contention between myself and city council -  
20 we have spent in the neighbourhood of \$4,000 to \$5,000  
21 endeavouring to encourage industry. I have even donated  
22 my own salary for this cause, but to date our results -

23 THE CHAIRMAN: That is nothing. What actual  
24 money in kind or in coin has been paid out say the last  
25 year, to unemployed people to enable them to live?

26 MR. TOSHACH: Well, you see, you would have to  
27 get those figures from the unemployment insurance people,  
28 sir.

29 THE CHAIRMAN: No, I am talking about the money  
30 that the city paid.

MR. TOSHACH: The city proper, sir. Well, it is







1  
2 an anomalous position because they make enough money  
3 so they gain enough insurance credits so thereby they  
4 don't go on relief. They go on unemployment insurance.

5 THE CHAIRMAN: I know. I am not asking you that.  
6 I am asking you about the amount that you pay out your-  
7 self as a city to help maintain people who need help.  
8 That is a very simple question, surely. What could be  
9 simpler?

10 MR. TOSHACH: Do you want to know what our  
11 relief roll is?

12 THE CHAIRMAN: Yes.

13 MR. TOSHACH: It would run in the neighbourhood  
14 of \$2,000 to \$3,000 a year.

15 THE CHAIRMAN: Well now, what is the total of  
16 your tax collections, say for last year?

17 MR. TOSHACH: Oh, approximately \$180,000.

18 THE CHAIRMAN: And of that have you a debenture  
19 debt?

20 MR. TOSHACH: Yes, sir.

21 THE CHAIRMAN: Amounting to what? What is  
22 your interest charge? And any capital increment?

23 MR. TOSHACH: I am afraid I will have to get  
24 that figure for you.

25 THE CHAIRMAN: I wonder if we could get this  
26 in a statement from you?

27 MR. TOSHACH: Certainly, sir.

28 THE CHAIRMAN: Could you have that information  
29 prepared?

30 MR. TOSHACH: Had Mr. Part been able to be  
here, he could have told you.





1  
2 THE CHAIRMAN: That is all I want, is the  
3 information. It makes very little difference where we  
4 get it. I would like to know the total tax collection,  
5 your operating expenses, including any debenture interest,  
6 any capital increments from schools.

7 MR. TOSHACH: Well, sir, how would it be if  
8 I sent you our last year's budget?

9 THE CHAIRMAN: Yes. I suppose it will contain  
10 most of those things. What is your relation with East  
11 Coulee? Is that another city?

12 MR. TOSHACH: It is, sir. This is one of the  
13 hamlets in this loose association called the Local  
14 Improvement District. It is administered directly.

15 THE CHAIRMAN: I see, it is a dependency of the  
16 city. What about schools in East Coulee? I understand  
17 there is a new school being erected there. Is that so?

18 MR. TOSHACH: Not to my knowledge, sir. I have  
19 been away; I just got back but usually if there is  
20 something - if it is to be of any size at all, the area  
21 is not all that large - I probably would have heard about  
22 it, sir.

23 THE CHAIRMAN: Has East Coulee its own municipal  
24 organization?

25 MR. TOSHACH: Well, sir, they are administered  
26 directly by the Department of Municipal Affairs in Edmonton.  
27 They pay their taxes to them.

28 THE CHAIRMAN: If anything, they have only a  
29 minor municipal organization?

30 MR. TOSHACH: I believe they have an advisory  
council. That is all.





1  
2 THE CHAIRMAN: Well, if you get that information,  
3 and I would like to know to what extent those  
4 persons on relief are miners.

5 MR. TOSHACH: Yes.

6 THE CHAIRMAN: Because surely over these years  
7 some of the miners have left the place and some of the  
8 miners have simply stayed on their farms.

9 MR. TOSHACH: I question if there is that  
10 many agricultural miners, sir.

11 THE CHAIRMAN: You may be quite right.

12 MR. TOSHACH: Farms in our area - you have to  
13 farm at least a section or it is uneconomical and you  
14 should have anywhere between \$60,000 to \$80,000 worth  
15 of machinery. An average miner is not in the position  
16 to have that.

17 THE CHAIRMAN: That is the new style of mining  
18 land.

19 MR. TOSHACH: I suppose you can call it that,  
20 sir. So far as that, I question whether there would be  
21 too many agricultural miners.

22 THE CHAIRMAN: Well, perhaps my information  
23 related to the time when farmers were men of the soil.  
24 If you can get any information, I would like to have it.

25 MR. TOSHACH: Yes.

26 MR. GUNN: Can you tell us, Your Worship, what  
27 type of fuel is mostly used for domestic heating in the  
28 city of Lethbridge?

29 MR. TOSHACH: Well, sir, it is mainly gas,  
30 except for me. I still burn coal.

MR. GUNN: So does the Chairman.







1  
2 THE SECRETARY: I would like to introduce the  
3 final brief by Mr. A. W. Howard on behalf of the  
4 Calgary Power Limited. This brief becomes Exhibit No.  
5 54.

6 ---EXHIBIT NO. 54: Submission by the  
7 Calgary Power Limited.  
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SUBMISSION BY  
THE CALGARY POWER LIMITED

Appearances:

Mr. A. W. Howard,

MR. HOWARD: Mr. Commissioner, I believe you  
already have copies of our brief?

THE CHAIRMAN: Yes.

MR. HOWARD: With your approval, I should like  
to read it.







1  
2 1. Alberta is endowed with abundant natural resour-  
3 ces, low cost fuel and power and a diversified agricul-  
4 tural output, that will amply support a growing popula-  
5 tion. Based on these resources, the province's popula-  
6 tion and economy has expanded at a high rate since the  
7 discovery of the Leduc oil fields. Industry has been  
8 attracted by low cost raw materials, power and fuel which  
9 enables industrial plants to compete in a substantial  
10 export market as well as in a rapidly growing local  
11 market.

12 Alberta has large coal resources. This coal  
13 ranges from anthracite to sub-bituminous. Mines were  
14 opened years ago in the Crow's Nest Pass, Canmore, Nor-  
15 degg and Mountain Park areas to furnish bituminous coal  
16 to railroads, industries and domestic users. Power plants  
17 at Edmonton, Drumheller and Lethbridge formerly burned  
18 sub-bituminous coal. The discovery of petroleum and  
19 natural gas changed this mining situation and markets for  
20 coal to railroads, industries and utilities were lost.  
21 This subsequently led to mine closures and to much unem-  
22 ployment in coal mining areas.

23 During the recent period of expansion in the  
24 province, the use of electricity increased at a high  
25 rate. Over the ten-year period, 1948 to 1958, the  
26 electric load supplied by central electric stations in  
27 Alberta, increased from 724 million to 2,475 million  
28 kilowatt hours or by 3.42 times. The average annual rate  
29 of increase was 13.2 per cent. This rate of growth is  
30 approximately twice that experienced in all Canada over  
the same period.





1  
2           The future of Alberta and therefore the demand  
3 for electricity is promising. However, the immediate  
4 prospects for growth of electrical load are uncertain.  
5 High interest rates are likely to slow down industrial  
6 development. The current imbalance of foreign trade,  
7 means that Canada is mortgaging the future by selling  
8 control of her business and natural resources, to pay for  
9 imports, largely of consumer goods. Furthermore, wages  
10 are still being pushed up faster than productivity is  
11 rising, thereby gradually pricing Canada out of much  
12 needed export markets.

13           In 1959, Calgary Power Limited's load represen-  
14 ted nearly two-thirds of the total electric load in the  
15 province. A review of its recent and projected thermal  
16 plant expansion program should, therefore, be helpful  
17 to the Commission in assessing the potential market for  
18 coal in the province's electric power industry.

19           In 1959, the Company's load was 1,848 million  
20 kilowatt hours, 45 per cent of this was supplied from  
21 eleven hydro plants on the Bow River and its tributaries.  
22 Some 41 per cent came from the Wabamun steam plant. The  
23 remaining 14 per cent was mainly steam power received  
24 under existing contracts. Thus over 50 per cent of the  
25 Company's 1959 load came from thermal plants and was  
26 generated from natural gas.

27           During 1959 Calgary Power's sales of electric  
28 energy were distributed as follows among the various  
29 classes of service:  
30







	<u>% of Total Energy Sales</u>
Domestic	8
Commercial	4
Small Power (including street lighting)	3
Wholesale (principally to the city of Calgary)	38
Industrial	39
Farms	<u>8</u>
	100

Calgary Power is presently supplying power to twelve coal mines in the province. The underground operations served are located in the Lethbridge, Crow's Nest Pass, and Canmore areas. The Company also supplied the coal mines in the Nordegg area until these were closed in 1955.

THE CHAIRMAN: Where is Nordegg?

MR. HOWARD: It is about 110 miles straight west of Red Deer, about 150 miles north and west of Calgary.

THE CHAIRMAN: Thank you.

MR. HOWARD: The principal strip operations currently served by the Company are located in the Taber, Camrose, Edmonton and Wabamun areas. Energy sales by the Company to coal mines increased from 11.7 million kilowatt hours in 1945 to a peak of 38.2 million in 1953, and then fell off to a low of 14.8 million in 1958. During 1959 these sales increased to 17.0 million representing 2.8 per cent of the Company's total industrial sales and 1.0 per cent of its total sales.

2. The Company's early operations were all based







1  
2 on hydro developments. A few years ago several factors  
3 such as growth of load, the lack of "close-in" economical  
4 hydro sites capable of providing the additional energy  
5 requirements, the improved techniques of steam generation  
6 and the availability of cheap fuel, made the combination  
7 of steam and hydro attractive. Steam plants are designed  
8 to carry base loads and water power to carry the peak  
9 loads. Additional peaking capacity has been added to  
10 several hydro plants that have storage ponds. By pur-  
11 chasing energy from other utilities, and by these peaking  
12 additions to hydro plants, the Company postponed building  
13 a steam plant until a unit of 66,000 kilowatts could be  
14 justified. With such a unit, most of the savings in  
15 lower capital cost per kilowatt and in fuel efficiency  
16 could be realized.

17 3. Oil as fuel was too high in cost to be con-  
18 sidered. Gas for short term use was available at  
19 reasonable cost, but for ultimate use coal was chosen for  
20 the following reasons:

21 (a) The reserves of bituminous and sub-bituminous coal  
22 in Alberta are large compared with the foreseeable  
23 market. The cost of coal would seem likely to  
24 decrease as mining methods improve and the out-  
25 put of each mine increases. High transportation  
26 costs preclude coal shipments to distant markets  
27 or for export. Sub-bituminous coal can be used  
28 locally in boiler plants whenever their size  
29 warrants the use of mechanical coal and ash handling  
30 machinery and automatic plant operation.

(b) Natural gas on the other hand, can be economically





1  
2 transported long distances by pipelines and can  
3 find a ready and profitable export market. It  
4 is a raw material for certain petrochemical pro-  
5 cesses. By reason of its convenience and cleanli-  
6 ness, it is a premium fuel for domestic use. Its  
7 use for purposes for which coal is well suited  
8 might be restricted sooner or later.

9 (c) It is expected that the trend of gas prices in  
10 Alberta would follow that in Texas and other gas  
11 producing states where, under the stimulus of  
12 expanding markets, the field price of gas has  
13 been constantly rising. As a result, steam plants  
14 that were originally gas-fired have been changed  
15 to burn Bunker "C" oil or coal. Thus, although  
16 an initial saving might be realized in steam  
17 plant operation through the use of gas, this would  
18 be small as compared with the later extra gas  
19 cost that can be expected over the life of the  
20 plant. The soundness of this view has already  
21 been demonstrated by the field price of gas which  
22 has almost doubled in recent years.

23 4. The Wabamun site was chosen for the steam plant  
24 because of ample cooling water, its location on railroad  
25 and highway, its proximity to cheaply recoverable strip-  
26 mined coal, its favourable location with respect to load  
27 centres and transmission facilities, and because the use  
28 of a premium fuel like natural gas is not justified for  
29 the generation of electricity when satisfactory low cost  
30 coal is available. The dedication of large reserves of  
gas would have been needed to protect the Company's







1  
2 rapidly expanding power demand over the plant's life which  
3 in turn would limit the gas available for export or other  
4 preferred uses. The advantage to the provincial and  
5 national economy of substituting a local fuel that cannot  
6 be exported for natural gas that can be, is thus  
7 obvious.

8 While the Wabamun project was still in the  
9 planning stage, the Company was offered gas in limited  
10 quantity for a short period on such favourable terms that  
11 it was able to defer a substantial capital expenditure  
12 required for equipping the plant for firing coal and for  
opening up the nearby coal mine.

13 The first 66,000 kilowatt unit was commissioned  
14 to burn gas at Wabamun in 1956. A second 66,000 kilowatt  
15 unit, also gas-fired, was added in 1958. Both units  
16 are designed so that coal-firing equipment can be added  
17 later. The third unit at Wabamun of 150,000 kilowatt  
18 capacity, is expected to be commissioned in 1962 and  
19 will be coal-fired only. One of the existing 66,000 kilo-  
20 watt units will probably be converted to coal-firing in  
21 1963 but the other one is likely to be left on gas for  
22 some time. For maximum economy, the coal-fired units  
23 will be loaded to capacity. The remaining gas-fired unit  
24 will carry any balance of load that cannot be generated  
25 by the hydro plants. This base loading of the coal-  
26 fired units will lead to maximum plant efficiency and to  
27 the best utilization of the available fuels.

28 5. Full-scale tests of all seams of Wabamun coal  
29 have recently been completed at the Battle river plant  
30 of Canadian utilities. These tests show that all the





1  
2 Wabamun seams have excellent firing qualities.

3 6. The Wabamun mine will be in production in 1962.

4 The Company has recently purchased a 35 cubic yard  
5 dragline excavator capable of stripping some 2,500,000  
6 tons of Wabamun coal per year. Loading shovels, coal  
7 hauling trucks, a coal breaker, coal handling machinery,  
8 etc., will be ordered shortly. The 150,000 kilowatt  
9 unit will require 700,000 tons of coal per year. With the  
10 conversion of one of the 66,000 kilowatt units to coal  
11 in 1963, the output of the mine will be increased to  
12 1 million tons per year. While the cost per ton of this  
13 1 million tons will be somewhat high due to the higher  
14 initial costs of the large dragline, it is estimated that  
15 the incremental cost of the additional 1,500,000 tons  
16 per year, up to the full capacity of the dragline, will  
17 be less than a dollar a ton delivered at the power plant.

18 7. The Wabamun operation will obviously be of no  
19 help to the existing coal industry in Alberta.  
20 If it is a case of keeping a bituminous coal mine going  
21 as a future source of coal for metallurgical, chemical  
22 or other use, by using some coal in the meantime for gener-  
23 ating electricity, the real competition will come from  
24 coal produced by strip mining. Assume by way of an  
25 example that bituminous coal has a heat value of 12,500  
26 BTU per pound while the Wabamun coal has 7,500 BTU per  
27 pound. Then three tons of bituminous coal would be the  
28 equivalent in heat value to five tons of Wabamun coal.  
29 The break-even price of equivalent bituminous coal to the  
30 one dollar per ton cost of Wabamun coal would be \$1.67  
per ton delivered at the stockpile of the Wabamun plant.







1  
2 However, the purchase of bituminous coal for the power  
3 plant would conserve the Company's own coal reserves and  
4 postpone the day when the Company's coal costs would be  
5 increased by having to go farther afield for fuel for  
6 the Wabamun operation. On this account and considering  
7 the slightly greater efficiency when burning bituminous  
8 coal, the less pulverizing cost and decreased plant  
9 maintenance, the Company might be justified in paying as  
10 high as \$2.00 per ton for bituminous coal delivered at  
the Wabamun stockpile.

11 8. The recent commencement of the construction of  
12 the Big Bend storage and hydro power plant on the  
13 Brazeau river and the 150,000 kilowatt extension scheduled  
14 for Wabamun will have the effect of delaying the com-  
15 missioning by Calgary Power of any further thermal capacity  
16 until 1966 or 1967 at the earliest.

17 In view of the large amount of peak load power  
18 that will be made available from the Big Bend hydro plant  
19 on the Brazeau, the Company is embarking on the construc-  
20 tion of high voltage lines to transmit the power from this  
21 plant and from the Wabamun plant to the main load  
22 centres of Calgary and Edmonton. The present transmission  
23 system from the hydro plants in the Bow river watershed  
24 is sufficient for delivery of the power generated at those  
25 plants to consuming areas. Furthermore, the capacity of  
26 these new lines can be increased, if required, to trans-  
27 mit the output of further units at Wabamun at small ad-  
28 ditional cost. There is, therefore, little prospect of  
29 a steam plant in the southern part of the province  
30 resulting in any substantial savings.







1  
2 9. If it is necessary for the government to build  
3 up a market for bituminous coal in order to keep the  
4 mines intact, the most practical plan would seem to be  
5 the shipment of this coal by the government to the  
6 Wabamun plant for burning there and charging the Company  
7 \$2.00 per ton for the delivered coal. There would also  
8 be some small expense at Wabamun in providing means for  
9 delivering the coal from cars to the receiving hoppers at  
10 the plant. A special freight rate from mine to plant  
11 might be negotiated along the same lines as that to  
12 Ontario markets, or the export rate to Japan. The govern-  
13 ment would have to absorb this freight charge. While  
14 this would be more costly per ton than the subvention for  
15 a mine-mouth plant, it would have the advantage to the  
16 government that, up to the requirements of the power plant,  
17 the tonnage could be made to suit the needs of the mine,  
18 and could be adjusted or discontinued altogether on short  
19 notice whenever a more lucrative market appeared.

20 10. The export of power to the Northwestern States  
21 might justify a new steam plant in the Crow's Nest Pass area.  
22 This would appear to be at least the case from now, because of  
23 hydro plants now under construction or contemplated in  
24 that area. A steam plant in the Crow's Nest Pass area  
25 would have an advantage over power from Wabamun for ser-  
26 vice to the Columbia river system since the economical  
27 and technical problems of electrical transmission for  
28 distances over three hundred miles or so, compound  
29 rapidly.

30 The larger power projects on the United States  
section of the Columbia river were started during the





1  
2 nineteen thirties as make-work programs with government  
3 funds at low interest rates. A considerable portion of  
4 the cost of these projects was charged to flood control,  
5 irrigation, navigation and recreational benefits. Recent  
6 financing has been done through public utility district  
7 debentures bearing low rates of interest and exempt from  
8 State and federal income taxes. As a result, power is  
9 being sold as low as \$17.50 per kilowatt year which is  
10 only slightly above what fuel alone would cost in the  
11 Crow's Nest Pass area. With a settlement of the  
12 Columbia river power situation in the offing, the pros-  
13 pects of selling steam generated energy to the northwestern  
14 States in any quantity, would seem remote.

14 11. The Company recognizes the importance to the  
15 national economy of having high grade bituminous coal  
16 available for metallurgical purposes and is willing and  
17 anxious to do whatever it can to assist in keeping the  
18 bituminous coal industry going through the present crisis.  
19 It will be appreciated, however, that the Company could  
20 not, nor would it be permitted to, without the approval  
21 of the Board of Public Utility Commissioners, increase  
22 the prospective cost of service to its customers. As  
23 the crisis in the bituminous coal industry would seem  
24 likely to be of reasonably short duration compared to  
25 the life of a steam power plant, the temporary use of  
26 bituminous coal in the Wabamun plant would seem, in our  
27 opinion, to be an answer as far as the government is  
28 concerned. While requiring temporarily a large subven-  
29 tion, it has the advantage of flexibility and no long-  
30 term commitment is required.







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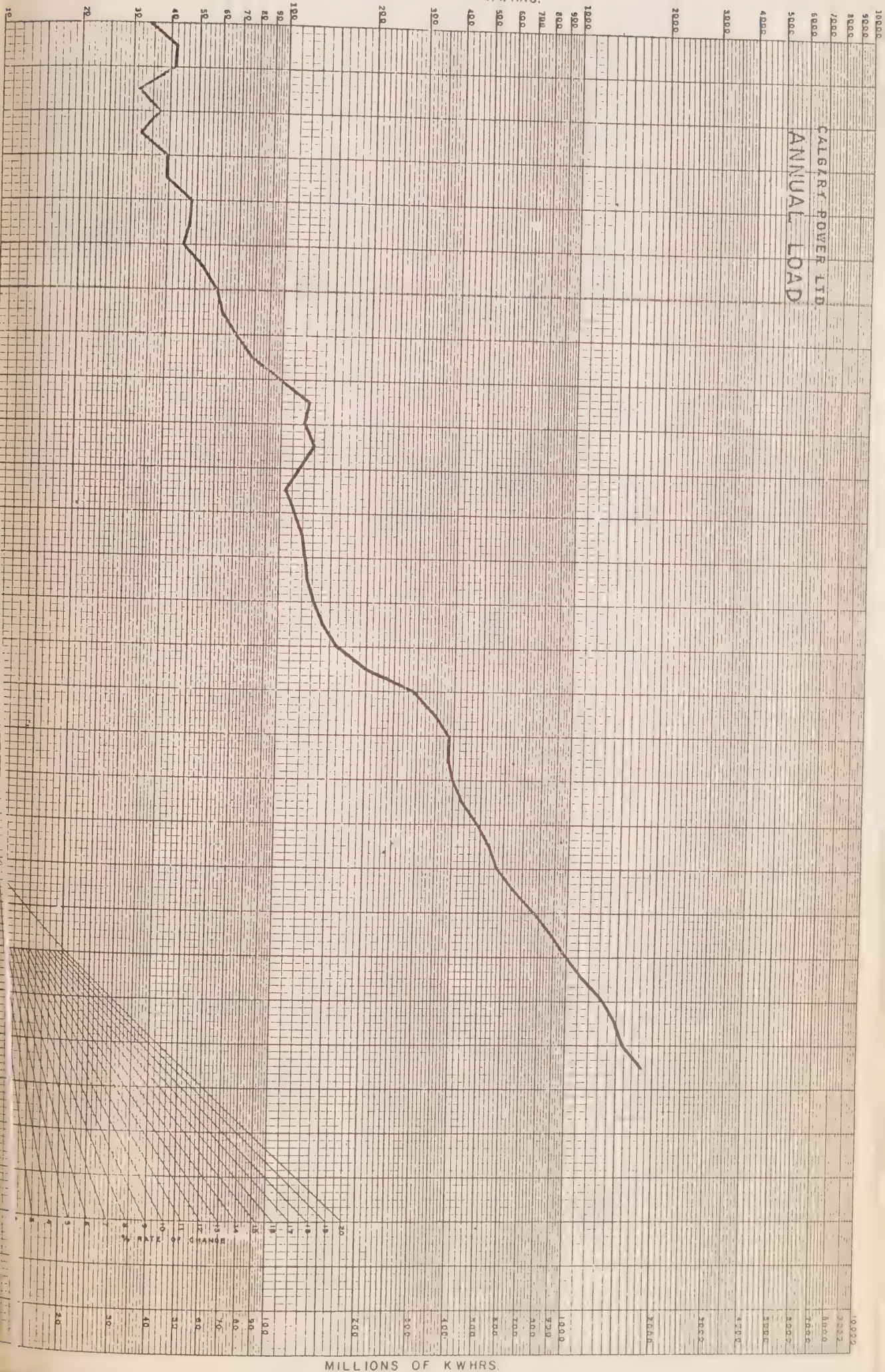
Howard

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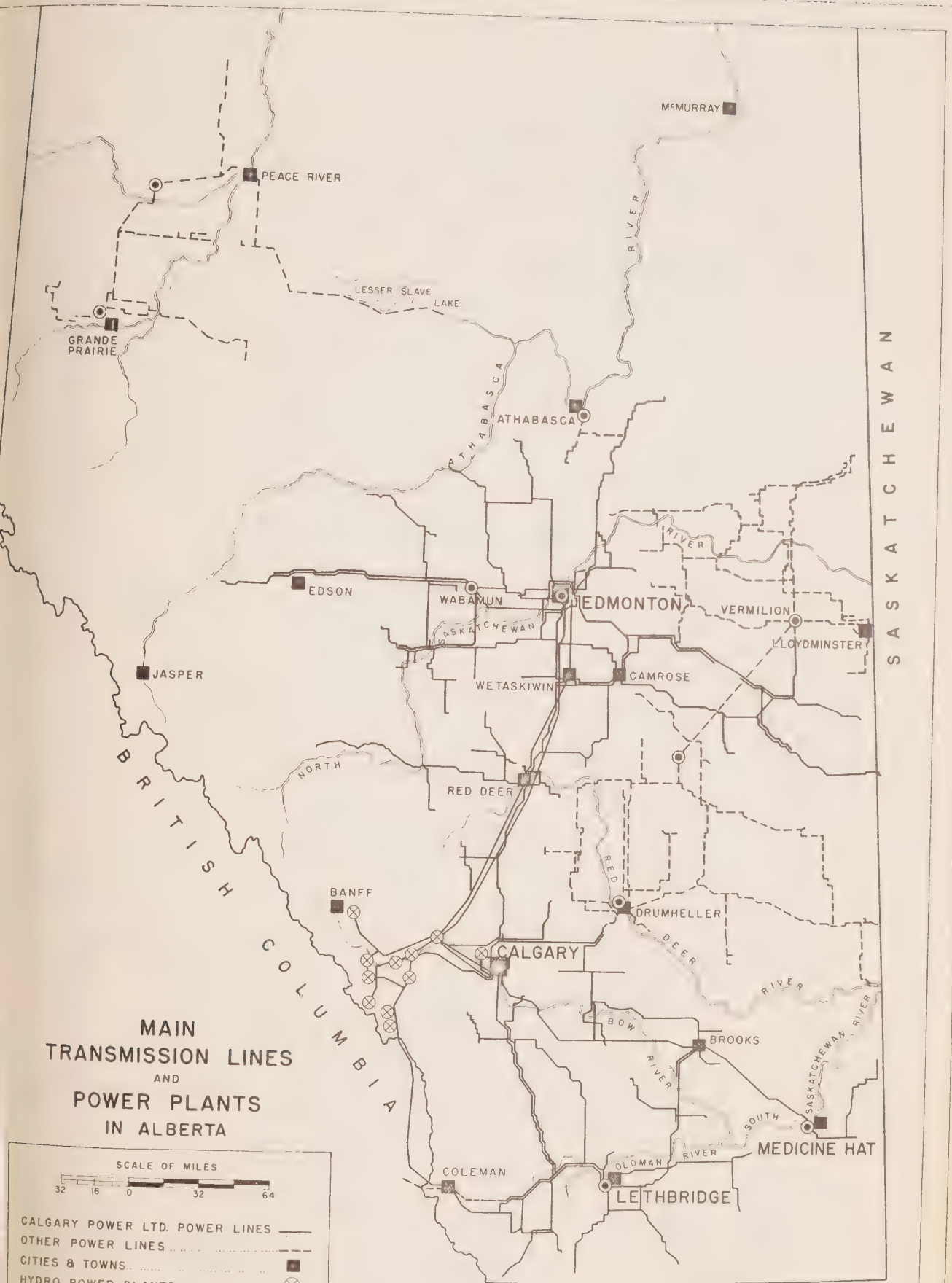
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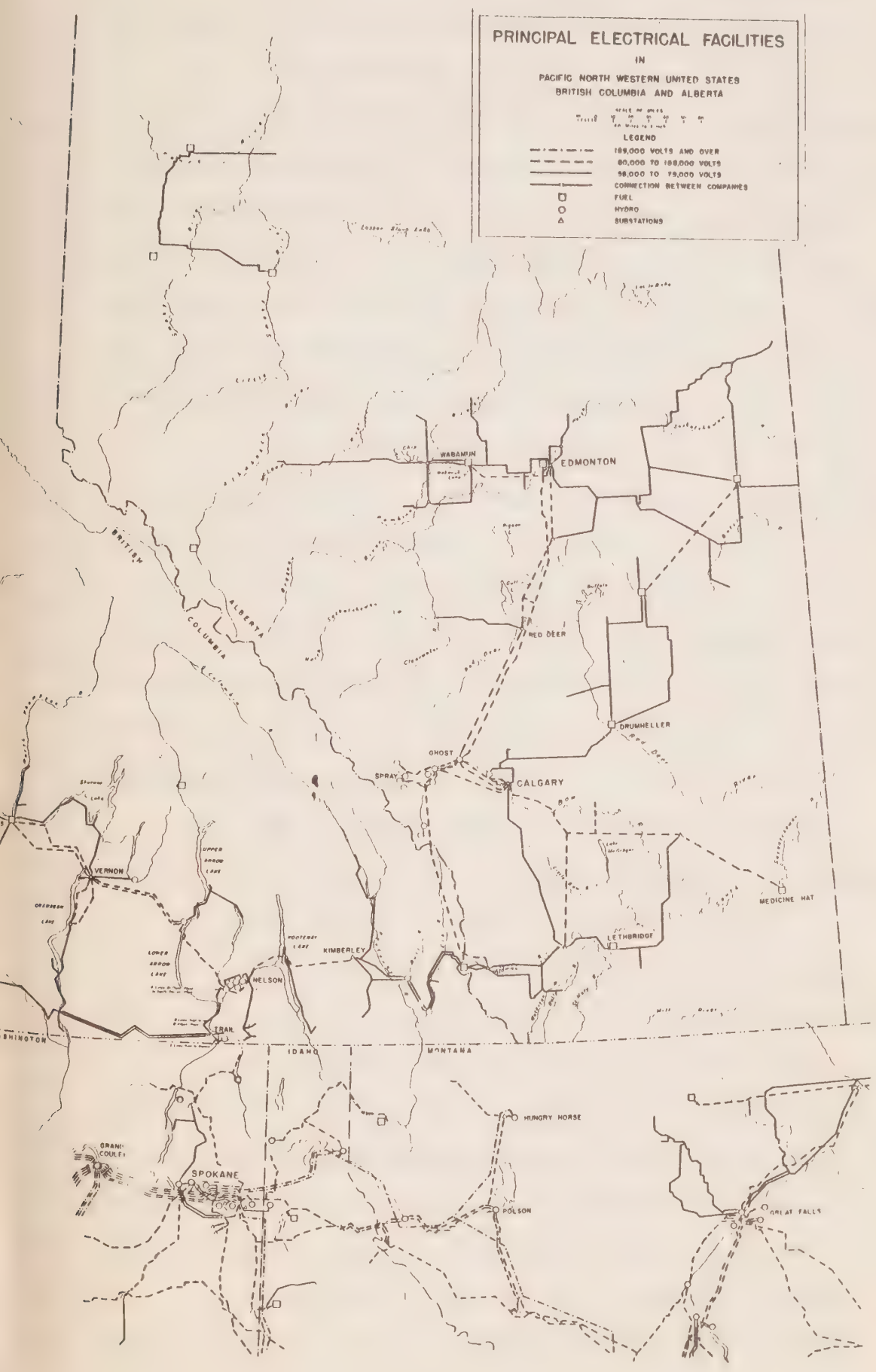
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1  
2 I would like to refer you at the moment to  
3 the appendices which have been included with the brief.

4 THE CHAIRMAN: Yes.

5 MR. HOWARD: The first one is a graph represen-  
6 ting the production of kilowatt hours of our own system.  
7 You will note that it represents a very rapid rate of  
8 growth, and that very rapid rate of growth is evident  
9 following 1947 with the discovery of oil at Leduc. There  
10 was also a very rapid rise in 1940 which arose from  
11 certain ore industries which were located in the province.

12 The second chart indicates the various trans-  
13 mission lines and the location of principal generating  
14 stations in the province.

15 The final chart shows a similar plan of the  
16 main transmission lines in the province of Alberta and  
17 their configuration with respect to the lines in British  
18 Columbia and Alberta, and adjacent territories in Montana,  
19 Idaho and Washington.

20 THE CHAIRMAN: How long do you figure your  
21 mining areas to continue to supply your plant at Wabamun?

22 MR. HOWARD: I beg your pardon.

23 THE CHAIRMAN: What period do you think your  
24 own coal reserves will be sufficient for your production?

25 MR. HOWARD: We believe that we have coal  
26 under our own control in the amount of 70 million tons.  
27 Based on an average consumption in the plant of about  
28 2 million tons a year, we would estimate that the coal  
29 reserves would have a life of thirty-five years.

30 Of course, we do not have under our control  
all the coal in the area. There is substantial other





1  
2 coal over which we have no control.

3 THE CHAIRMAN: I gather anything over \$2.00 a  
4 ton for coal, would not enable you to carry on at present  
5 prices?

6 MR. HOWARD: Anything over \$2.00 a ton?

7 THE CHAIRMAN: Yes.

8 MR. HOWARD: I would believe that to be the  
9 case.

10 THE CHAIRMAN: When you speak of the government,  
11 have you any particular government in mind?

12 MR. HOWARD: No, sir, we do not have anything  
13 in mind in that. Being a private company in the power  
14 business, we felt it was not in our province to suggest  
15 where the compensation should come from.

16 THE CHAIRMAN: That price of coal would seem to  
17 rule out, certainly in the present framework of power  
18 production, the sale of any coal produced underground,  
19 by underground means, unless most of the cost of the  
20 transportation was handled by some government.  
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1  
2 MR. HOWARD: The answer to that would seem to  
3 be the case at this stage, of course.

4 THE CHAIRMAN: Of course, the coal cost may go  
5 down or the coal cost may go up. Still there is quite  
6 a space there to cover. Well, on the other hand, they  
7 are using coal in Ontario for generation of power, at a  
8 much greater cost than that.

9 MR. HOWARD: Very much greater. On the other  
10 hand, I think what we are suggesting here is relating the  
11 cost of the underground coal to the cost of alternative  
12 coal.

13 THE CHAIRMAN: Of what value?

14 MR. HOWARD: Well, of course in Ontario, getting  
15 back to the original statement, not being any coal in  
16 Ontario there is no competitive price, so that the coal  
17 price is what the American mines, or wherever the coal  
18 is produced, plus the transportation costs.

19 In this province, due to the fact that there  
20 are alternative fuels available, in this case we are  
21 referring to coal produced in strip mines, then your  
22 competition is from the strip mines.

23 THE CHAIRMAN: I quite agree. I was looking  
24 forward to 35 years. How do your retail prices for  
25 domestic purposes compare with those in Ontario?

26 MR. HOWARD: I would say, sir, they are not  
27 far out.

28 THE CHAIRMAN: Not much different. Any  
29 questions, Mr. Gunn?

30 MR. GUNN: No, I haven't.

THE CHAIRMAN: Thank you, Mr. Howard, for a





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TORONTO, ONTARIO

Howard  
(The Chairman)

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very instructive submission.

---Whereupon the hearing adjourned until April 19, 1960,  
in Victoria, B. C.



*Don K...*

# ROYAL COMMISSION

ON

## COAL

### HEARINGS

HELD AT

Victoria  
British Columbia

UNCORRECTED TRANSCRIPT  
Royal Commission on Coal(1959)

VOLUME No.:

**10**

DATE:

**APRIL 19 1960**

OFFICIAL REPORTERS  
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ROYAL COMMISSION ON COAL

Hearings held in  
The Empress Hotel,  
At Victoria, B.C.  
On the 19th day of  
April, 1960,  
At 10:00 a m.

PRESENT:

Mr. I. C. Rand, Q.C.	-- Chairman
Dr. A. E. Cameron	-- Technical Advisor to the Commission

COMMISSION COUNSEL:

Mr. W. A. D. Gunn, Q.C	
Mr W. Keith Buck	-- Secretary
Mr. J. J. Ellis	-- Administrative Officer





1 MR. ELLIS: Good morning, gentlemen.

2 Mr. Commissioner, there are four briefs  
3 scheduled for this morning, and I would firstly call  
4 upon Mr. Bonner, who will present a brief on behalf  
5 of the Provincial Government of the Province of British  
6 Columbia.

7 This brief will be recorded in the records of  
8 the Commission as Exhibit No. 55.

9 Mr. Bonner, would you please read your brief.

10  
11 ---EXHIBIT NO. 55: Submission of the Government  
12 of British Columbia.

13 SUBMISSION OF THE GOVERNMENT OF  
14 BRITISH COLUMBIA

15 Appearances:

16 Mr. R.B. Bonner

-- Deputy Chief Inspector  
of Mines.

17  
18 MR. BONNER: This brief is a submission to  
19 the Royal Commission on Coal (1959) from the Government  
20 of British Columbia, April, 1960, presented by the  
21 Honourable W.K. Kiernan, Minister of Mines and Petroleum  
22 Resources.

23 In the year 1835, coal was discovered on the  
24 east coast of Vancouver Island at Suquash. From that  
25 date to the present coal has been mined continuously in  
26 British Columbia. The production increased progressively  
27 to a yearly total of 3,515,944 tons in 1910, then gradually  
28 declined to 882,962 tons in 1958. The coal production in  
29 1959 was about one-fourth that of 1910. The decline has  
30 been due primarily to the increasing use of diesel fuel,







oil, gas, and electricity; competitive fuels which lend themselves to cleanliness and more or less automation. Ships and railroads that at one time used coal exclusively are now either oil-fired or diesel-powered. The use of oil and gas for the heating of large buildings and homes is increasing rapidly.

### Coal Deposits

There are nine major coalfields in British Columbia; namely the Crowsnest, Comox, Nanaimo, Merritt, Telkwa, Peace River, Groundhog, Hasler Creek - Pine River, and Hat Creek coalfields.

### Crowsnest Coalfield

This coalfield is the largest in the Province in terms of reserves. It lies in the southeastern part of British Columbia, and is bounded on the south by the State of Montana and by the Province of Alberta on the east. The reserves as estimated by B. R. MacKay, of the Geological Survey of Canada, are in the neighbourhood of 5,000,000,000 tons of probable recoverable coal. The coal deposits are of Lower Cretaceous age and are ranked as medium volatile bituminous. The B.T.U. content generally runs close to 14,000 per lbs. and the coking quality is usually excellent. In fact, this field constitutes one of the most important reserves of coking-coal for metallurgical purposes on the continent.

While several companies have interests in this field, only one colliery, the Michel Colliery of The Crow's Nest Pass Coal Company Limited, is operating in this area.





1     Comox Coalfield

2             This coalfield extends from Tsable River north-  
3     west to Campbell River, a distance of about 45 miles,  
4     and inland from the east coast of Vancouver Island  
5     for distances ranging from 2 to 13 miles. The coal  
6     is of high volatile "A" bituminous rank and is of  
7     Upper Cretaceous age.

8             The Cumberland area of this field has been  
9     mined extensively, and the reserves therein are more  
10    or less depleted. The Tsable River area to the south  
11    contains considerable reserves of coal, which are at  
12    present being exploited by the Tsable River mine. The  
13    coal is excellent for steam raising, but the high sulphur  
14    content makes it unsuitable for the manufacture of  
15    metallurgical coke.

16            The probable reserves of coal in the Comox  
17    coalfield are considered to be approximately 12,000,000  
18    tons. Due to the lack of detailed information, this  
19    estimate may be conservative.

20    Nanaimo Coalfield

21            This coalfield consists of the following  
22    areas:- the Extension, Wellington, Nanaimo, and South  
23    Wellington - Cassidy. The first three areas were mined  
24    extensively for about fifty years and are now considered  
25    to be depleted of reserves. There are possible reserves  
26    of coal lying to the east of the abandoned mines in the  
27    South Wellington - Cassidy area and the east shore-line  
28    of Vancouver Island. This coal would be uneconomic at  
29    the present time due to the considerable depth of the  
30    seam and the physical and structural difficulties





1 encountered during mining operations. The seam at  
2 depth is subject to "out-bursts", and the large  
3 barren areas met with in previous operations have made  
4 the planning and the mining of the coal most difficult  
5 and costly. The coal is very friable, and consequently  
6 the run-of-mine coal contains a low percentage of lump.

#### 7 Merritt Coalfield

8 This coalfield is in south central British  
9 Columbia near the town of Merritt. B. R. MacKay  
10 estimates the possible reserves in this area at about  
11 35,000,000 tons of probable recoverable coal. The  
12 outcrop coal has been mined quite extensively, leaving  
13 the reserves of coal to be mined at depth. The coal  
14 is of high volatile "B" bituminous rank and is of  
15 Tertiary age.

16 While the estimated reserves are of consider-  
17 able magnitude, it is considered that extensive  
18 geological work and diamond-drilling is required to  
19 prove that these reserves exist.

#### 20 Telkwa Coalfield

21 This coalfield is located on tributaries of  
22 the Telkwa River near Telkwa, on the Canadian National  
23 Railway. The coal is of medium volatile bituminous  
24 rank of Upper Cretaceous age, and is excellent for  
25 steam raising.

26 The field has an area of about 7 square miles  
27 and contains five seams of coal, three of which are  
28 more than three feet in thickness. Generally, the  
29 coal measures are covered by a thick mantle of alluvium  
30 and glacial drift, which, in addition to the many







1 faults, folds, and intrusions of volcanic rock, has  
2 presented serious problems to mining and to the accurate  
3 assessment of reserves. Due to the foregoing geological  
4 conditions, the field is divided into a number of small,  
5 localized coal deposits.

6 The reserves of probable recoverable coal have  
7 been estimated at about 2,240,000 tons, with considerable  
8 possible reserves in addition.

9 Peace River Coalfield

10 This coalfield centres around the Peace River  
11 Canyon area and contains eight seams ranging from  $3\frac{1}{2}$   
12 to  $5\frac{1}{2}$  feet in thickness. The coal is high-grade, low  
13 volatile bituminous and is of Lower Cretaceous age.  
14 Mining has been carried on on a small scale for several  
15 years for local use only, at Fort St. John and Dawson  
16 Creek.

17 It is estimated that there is 67,200,000 tons  
18 of probable recoverable coal in this area.

19 Groundhog Coalfield

20 This unexploited coalfield lies in rugged  
21 mountainous territory at the headwaters of the Skeena  
22 River about 150 miles north of Hazelton, which is on the  
23 Canadian National Railway.

24 There are four seams of commercial thickness,  
25 and the coal is largely low volatile bituminous and  
26 anthracite. It is estimated that the mineable reserves  
27 in this area are in the neighbourhood of 900,000,000 tons  
28 of probable and possible coal of Lower Cretaceous age.

29 Hasler Creek - Pine River Coalfield  
30





1           The coal deposits in this field have been  
2 tested in three locations only; namely, the Hasler Creek,  
3 Willow Creek, and Noman Creek areas. These creeks are  
4 tributaries of the Pine River, which flows northeasterly  
5 to the Peace River. The field is transversed by both  
6 the John Hart Highway and the Pacific Great Eastern  
7 Railway, about 120 miles north of Prince George.

8           The areas reported above are estimated to  
9 contain 40.8 million tons of recoverable coal which is  
10 of low to medium volatile rank, low in ash, high in  
11 heat values (13,000 to 15,000 B.T.U. per pound), and  
12 contains about 0.5 per cent sulphur. The coking  
13 characteristics are fair.

#### 14 Hat Creek Coalfield

15           This coalfield lies approximately halfway  
16 between Lillooet and Ashcroft, and about 16 miles from  
17 each. The coal deposits are Tertiary lignites. Two  
18 railways are in close proximity to the deposits, the  
19 Pacific Great Eastern at Pavilion, about 13 miles to  
20 the northwest, and the Canadian Pacific at Ashcroft.

21           During 1957 and 1959, Dolmage, Mason &  
22 Stewart, Ltd., consulting engineers, were employed to  
23 determine the quantity and quality of the coal in this  
24 field. They estimate the proven reserves at 340 million  
25 tons of coal by selective open-pit mining and averaging  
26 6,180 B.T.U. per pound.

#### 27 Market Trends

28           In the year 1942, the tabulation of coal  
29 production of the Province in terms of markets was  
30 started by the Department of Mines. In the following







paragraphs the bracketed figures refer to comparative 1958 production.

The net production of coal in 1942 was 2,170,739 short tons (802,591), of which 1,823,539 tons (564,327) was distributed to the various markets as follows:- railway use - 502,765 tons (63,810); domestic and industrial use in Alberta, Saskatchewan, Manitoba, and Ontario - 260,066 tons (228,254); domestic and industrial use in British Columbia - 732,944 tons (200,672); exported to the United States - 213,913 tons (68,300); and ships' bunkers - 113,851 tons (3,291).

In addition to the above 14,854 tons of coal (224,408) was used in making 96,157 tons of coke (173,919), of which 34,971 tons (73,726) was exported to the United States, and 61,857 tons (87,515) used in British Columbia.

In reviewing the foregoing, it will be noted that the use of coal on railways has been cut drastically from 502,765 to 63,810 tons of coal. This market is rapidly being eliminated by the increasing use of oil-fired and diesel-driven engines.

The shipment eastward of domestic and industrial coal has dropped from 260,066 to 228,254 tons. This market has not dropped as severely as others, due in part to the subsidy and to the fact that the bulk of these orders are for industrial use.

The domestic and industrial market in British Columbia has been severely curtailed due to the increasing use of oil and gas fuels, as indicated by the drop from 732,944 to 200,672 tons.





1           The increasing use of oil and gas is reflected  
2     in the drop in exports to the United States from 213,913  
3     to 68,300 tons.

4           With the exception of a few small coastal  
5     vessels, the demand for bunker coal has just about  
6     disappeared, the ships are now fired almost exclusively  
7     by oil.

#### 8                           The Future of Coal

9           The increasing use of the competitive fuels;  
10    oil, gas and electricity, has resulted in the gradual  
11    closing down, one by one, of the producing mines of the  
12    Province. This in itself is regrettable on several  
13    counts. It is generally not economical to re-open them,  
14    and they bar access to virgin coal beyond, except  
15    through expensive shafts. While the loss of the pits  
16    themselves is serious, the loss of working personnel  
17    is most serious. The men, on being laid off at the  
18    mines, find work elsewhere and would not be available in  
19    the future. The training of young men for replacements  
20    is at a very low ebb.

21           It is felt that, due to the rapid increase  
22    in our population, all of our sources of energy will  
23    be needed in the not too distant future. It is believed  
24    that in the best interests of the coal industry in  
25    particular and the national welfare as a whole, a  
26    national policy regarding energy be instituted so that  
27    our power resources are conserved and used to the  
28    best advantage. The maintenance of our present coal  
29    mining industry is, we believe, imperative to these  
30    ends.







1           The present freight subsidy on coal from  
2 the eastern part of the Province to industrial markets  
3 in the Provinces of Manitoba and Ontario is most  
4 helpful, and should be maintained or increased when  
5 necessary.

6           The subsidy on coal exported to foreign  
7 countries via ships has put new life into the mines  
8 in the Crowsnest field. This timely aid could be the  
9 means of creating a large overseas market for our coking  
10 coal from this district, which has a high potential.

11           Thermal power generation has not, as yet,  
12 had much application in the Province, except for local  
13 power requirements of certain industries and mines.  
14 This type of power generation should be encouraged where-  
15 ever feasible, as it can be highly competitive with  
16 other sources of power when the power plant can be  
17 installed at or near the coal mines. The Hat Creek  
18 coalfield, with its proven reserves of 340,000,000 tons of  
19 coal, is a source of comparatively cheap thermal power  
20 that could be, and should be, exploited in the future.  
21 Its potential for power is vast.

22           There are other smaller coalfields in isolated  
23 districts, such as the Telkwa coalfield, that could  
24 possibly be used for the generation of thermal power.  
25 Assistance from the Federal Geological Department in  
26 delineating the reserves of these isolated fields would  
27 be most helpful to the small mining companies who  
28 cannot themselves afford such work.

29           On Vancouver Island there is only one mine,  
30 The Tsable River mine of Canadian Collieries Resources







1 Limited, operating in the Comox coalfield. It has  
2 been scheduled to close May, 1960, because of in-  
3 sufficient markets. It supplies coal for domestic  
4 and industrial use on the coast; in fact, it is the  
5 only producing coal mine left on the Pacific coast.  
6 Every effort and aid should be given this operation,  
7 as many people still must rely on this cheap source  
8 of heating for their homes.

9 Respectfully submitted on behalf of the  
10 Government of British Columbia.

11 THE CHAIRMAN: Mr. Bonner, just on the last  
12 stage there, it says: "Every effort and aid should be  
13 given this operation....". What has the Province  
14 offered to give to it?

15 MR. BONNER: Well, as I understand, today  
16 they have given every -- practically all the Government  
17 contracts.

18 THE CHAIRMAN: I don't quite follow.

19 MR. BONNER: We burn a lot of coal in our  
20 Government institutions in the Province.

21 THE CHAIRMAN: In your Government buildings?

22 MR. BONNER: Yes, like the jail, and all that,  
23 and they have given most of those, I think, to the  
24 Comox.

25 THE CHAIRMAN: Is there any regulation or  
26 order in council to that effect?

27 MR. BONNER: I am quite sure they have them.

28 THE CHAIRMAN: It is a competitive matter?

29 MR. BONNER: Yes.  
30





1 THE CHAIRMAN: And if the coal cannot compete  
2 with gas or oil, it loses.

3 MR. BONNER: There is a ten per cent  
4 differential. If the Tsable River was within ten  
5 per cent of any bid, they would still get it.

6 THE CHAIRMAN: If it was not more than ten  
7 per cent higher?

8 MR. BONNER: That is what I understand.

9 THE CHAIRMAN: Can you tell me what amount  
10 of coal is used by the Province under that regulation  
11 and practice?

12 MR. BONNER: I would say in the neighbourhood  
13 of 40,000 tons, I think. I am just guessing now. It  
14 would be in that neighbourhood.

15 THE CHAIRMAN: It would be in the neighbourhood  
16 of about 40,000 tons; you think it would be that.

17 MR. BONNER: All told.

18 THE CHAIRMAN: Apart from that, what has the  
19 Province done or is willing to do?

20 MR. BONNER: That is all they have offered  
21 to do that they can do, that I know of.

22 THE CHAIRMAN: What do you think that the  
23 Dominion can do that the Province cannot do?

24 MR. BONNER: Well, the Federal Government in  
25 the Comox field -- they have given aid there, they have  
26 helped there.

27 THE CHAIRMAN: That is a Dominion - wide  
28 practice.

29 MR. BONNER: Yes.  
30







1 THE CHAIRMAN: They have twenty per cent on  
2 competing fuel.

3 MR. BONNER: Yes. It is pretty hard to say  
4 what you could do. The generation of power is the  
5 one hope, but the coal is probably too high, too high-  
6 priced at the moment.

7 THE CHAIRMAN: I happened to notice something  
8 in the paper this morning which said that you were  
9 flooded with power. Is that so?

10 MR. BONNER: Well, there are lots of sources  
11 of power which could be developed.

12 THE CHAIRMAN: I mean, your capacity for  
13 power today is much greater than the Province can  
14 consume.

15 MR. BONNER: Well, the Government has been  
16 saying that we are very close to the demand, the demand  
17 is pretty close to the supply right now. It is not  
18 my department.

19 THE CHAIRMAN: Well, is gas found in British  
20 Columbia?

21 MR. BONNER: Oh, yes, tremendous quantities.

22 THE CHAIRMAN: In the north, I suppose.

23 MR. BONNER: In the north, that is correct.

24 THE CHAIRMAN: And have they been exploited  
25 in anyway?

26 MR. BONNER: Yes; they are bringing gas down  
27 now, to Vancouver.

28 THE CHAIRMAN: Is the field owned originally  
29 by the Province?  
30





1 MR. BONNER: Yes, it is Provincial territory,  
2 and it is probably operated by mostly American companies  
3 putting the wells down, I understand.

4 THE CHAIRMAN: And they do it under licence  
5 from the Province?

6 MR. BONNER: Yes.

7 THE CHAIRMAN: So the Province is willing  
8 that that resource be exploited.

9 MR. BONNER: Yes.

10 THE CHAIRMAN: And you agree that it is  
11 gas that has played the greatest part in displacing  
12 coal.

13 MR. BONNER: To the homes, yes, and fuel  
14 oil.

15 THE CHAIRMAN: The two of them.

16 MR. BONNER: Yes.

17 THE CHAIRMAN: Does the Province produce  
18 fuel oil?

19 MR. BONNER: They have oil in the north,  
20 and they are bringing some of it down now.

21 THE CHAIRMAN: And that is under licence  
22 from the Province?

23 MR. BONNER: That is correct.

24 THE CHAIRMAN: So the policy of the  
25 Province is to permit, and I suppose by that very fact  
26 encourage, the use of gas and oil?

27 MR. BONNER: That would be correct.

28 THE CHAIRMAN: I don't suppose under those  
29 circumstances it would be going astray to say that  
30 it is doing that because of greater efficiency?





1 MR. BONNER: Yes, it is more -- it is clean  
2 to handle and it more or less automatic.

3 THE CHAIRMAN: Then why should aid be given  
4 to the coal operation?

5 MR. BONNER: Well, I say we will need sources  
6 of power in the not too great distant future. Our  
7 population is increasing tremendously, and we will need  
8 all the power we can get, and if we lose mining  
9 personnel --

10 THE CHAIRMAN: Isn't your loss of mining  
11 personnel due to the very policy of the Provincial  
12 Government?

13 MR. BONNER: Well, you have an argument there,  
14 I think. If you allow competing fuels to come in ...

15 THE CHAIRMAN: So if you look to the Dominion  
16 to support the coal -- here you have two conflicting  
17 policies within British Columbia, one upholding the coal  
18 and the other really, in effect, destroying it.

19 MR. BONNER: We cannot deny our own people the  
20 use of the gas and oil in British Columbia.

21 THE CHAIRMAN: I am just looking at it in  
22 the competitive sense, that here you have these super-  
23 seding fuels; gas and oil have really superseded the coal  
24 all over the western world.

25 MR. BONNER: That is correct.

26 THE CHAIRMAN: Certainly in Europe and  
27 America.

28 MR. BONNER: That is correct.

29 THE CHAIRMAN: And the only way in which you  
30 could maintain coal would be by purely artificial means,







1 artificial as contrasted with the economic  
2 forces.

3 MR. BONNER: Yes. We are assisting them  
4 now by subsidies.

5 THE CHAIRMAN: I suppose everybody looks  
6 to the Dominion as the contriver in these artificial  
7 means.

8 MR. BONNER: Yes.

9 THE CHAIRMAN: The question may then be:  
10 Why? I must assume from the action of the Province and  
11 from its very proper desirability to use the gas and  
12 oil in their present dominant position, which could  
13 threaten the basic resource of coal for this province,  
14 that it will remain and probably remain until the gas  
15 and oil gets so scarce that the coal can compete  
16 economically.

17 MR. BONNER: That is quite possible.

18 THE CHAIRMAN: Can you suggest any reason  
19 why that would not follow?

20 MR. BONNER: Well, we have a vast deposit of  
21 coal at Hat Creek there, 340 million tons of it there,  
22 and to me that is very, very cheap power, electric power,  
23 and I have been told that is going to be left there  
24 because other sources of power would be used first.  
25 If it is the cheapest source of power in the Province,  
26 why isn't it used first?

27 THE CHAIRMAN: Why isn't it?

28 MR. BONNER: That is something that I can't  
29 tell you why. It is not my province.  
30





1 THE CHAIRMAN: If it was really an inviting  
2 future, don't you think it would be taken up?

3 MR. BONNER: They are sitting on it now.

4 THE CHAIRMAN: So there are not any greater  
5 prospects from that utilization than from any other  
6 utilization.

7 MR. BONNER: That is a special question and  
8 I am keeping out of it.

9 THE CHAIRMAN: So it must be in the interest  
10 of the Province. You are not suggesting it is Dominion?

11 MR. BONNER: No, it is not Dominion. We have  
12 many, many families who cannot afford oil; coal is still  
13 the cheapest fuel.

14 THE CHAIRMAN: They are Provincial families.

15 MR. BONNER: Yes; they are Dominion, too.

16 THE CHAIRMAN: They are primarily Provincial.

17 MR. BONNER: Yes. A lot of them cannot afford  
18 the furnaces, they still have to have the coal.

19 THE CHAIRMAN: That is what the Province  
20 faces in its general policy of allowing gas and oil  
21 to be exploited. Don't you see it is the Province's own  
22 action that is doing this. What business would the  
23 Dominion have to come in and counteract that policy by  
24 spending Dominion money to allow uneconomic coal to be  
25 used?

26 Well, that may be a puzzling question, and  
27 I won't press for an answer. All I am pointing out is  
28 that these different aspects of the whole question must  
29 be viewed.

30 I was wondering if you could tell me how much







1 of that 260,066 tons was sent to Ontario, and the  
2 228,000. That is for domestic and industrial use in  
3 Saskatchewan, Alberta, Manitoba, and Ontario.

4 MR. BONNER: Do you want the amounts for  
5 Ontario alone, sir?

6 THE CHAIRMAN: Yes.

7 MR. BONNER: I am afraid I don't have it off  
8 hand.

9 THE CHAIRMAN: It is in my mind that it is  
10 only to Ontario that the subsidy applies when you say:  
11 "This market has not dropped as severely as others,  
12 due in part to the subsidy....". That doesn't apply  
13 to anything west of Ontario, to any markets?

14 MR. BONNER: I am not positive of that. I  
15 will have to read the order in council again.

16 THE CHAIRMAN: Can you give me an estimate of  
17 the number of mines that have been closed, say, within  
18 the last ten years in this Province?

19 MR. BONNER: The Cold Creek Mine, the big one.  
20 Most of the small ones -- we have had Michel and Cold  
21 Creek working, Cumberland.

22 THE CHAIRMAN: Could you get me a statement  
23 of the number of coal mines and their size actually  
24 operating today in British Columbia and the number that  
25 have been closed, with their size, within the last ten  
26 years? Could you have that statement prepared?

27 MR. BONNER: I think so, yes. That is the  
28 production and personnel.

29 THE CHAIRMAN: Yes; and, if you have it, the  
30 manner in which the miners have been absorbed or left to





1 their own resources or otherwise taken up in some form  
2 of work.

3 MR. BONNER: Yes, we can do that.

4  
5 CROSS-EXAMINATION BY MR. GUNN:

6 MR. GUNN: One question, sir. Mr. Bonner,  
7 I gather from your remarks that the only assistance  
8 your Province is giving to the coal industry is the  
9 burning of coal in some of the Provincial buildings where  
10 the price is compatible compared to gas and oil?

11 MR. BONNER: Yes, that is right.

12 MR. GUNN: What is the percentage of the  
13 Provincial Government Buildings that are burning coal  
14 now?

15 MR. BONNER: I believe -- I may be wrong --  
16 I think they are all burning coal as far as I know.  
17 We have some private dwellings in Victoria that may be  
18 oil-fired, but our main buildings are all coal- burning.

19 MR. GUNN: And I think you said 40,000 tons.

20 MR. BONNER: I am just guessing on that. That  
21 is the Province.

22 MR. GUNN: Would you check on that and let  
23 us have the actual figures, please?

24 MR. BONNER: I can get that from another  
25 department. I don't handle that myself, but I can get  
26 it for you.

27 MR. JORDON: Mr. Commissioner, may I make  
28 the following observation?

29 THE CHAIRMAN: Yes. What is your name?  
30





1 MR. JORDON: My name is Jordon. I am with the  
2 Western Canada Coal Fuel Dealers. I think you will find  
3 that there was a Provincial Act passed about ten years  
4 ago, which legislation empowers the Purchasing Commission  
5 to buy coal and give preference -- there is no ten  
6 per cent named at all -- to give preference to British  
7 Columbia coal where it can be demonstrated that by loss  
8 of such contract that some British Columbia community  
9 will suffer. I give the example of the Comox field,  
10 the Tsable River field; they have been given a contract  
11 for heating the Essondale Institution. They have at  
12 times been awarded the contract even though competitive  
13 coal from Alberta could come in here at several dollars  
14 a ton less in price.

15 THE CHAIRMAN: Perhaps you could make that  
16 statement independently of what Mr. Bonner has just  
17 given us.

18 MR. JORDON: What I am trying to emphasize  
19 is that the Provincial Government have done considerable  
20 towards keeping coal alive in this Province.

21 THE CHAIRMAN: If that is so, I would like to  
22 have that prepared as a matter of individual interest.  
23 We can see what the act is, and if you would let me  
24 have a statement of what action has been taken by the  
25 Provincial Government under that statute.

26 MR. JORDON: I am just making an observation;  
27 I am not here on behalf of the Provincial Government.

28 THE CHAIRMAN: No, but you are suggesting a  
29 subject matter of importance.

30 MR. JORDON: I just make that observation by







1 way of volunteering some additional information at  
2 this meeting.

3 THE CHAIRMAN: Mr. Bonner, could the Department  
4 furnish me, first, with the statute and its terms, and,  
5 secondly, what steps have been taken since its passing  
6 by the Provincial Government?

7 MR. BONNER: I will do all I can. That was  
8 the Purchasing Commission which they put in themselves.  
9 It is not an act of Parliament.

10 THE CHAIRMAN: Could you include that in a  
11 statement and let me know what the situation is?

12 MR. BONNER: I will do that.

13 MR. ELLIS: Mr. Commissioner, I would now like  
14 to call Mr. E.O.T. Simpson, who will present a brief  
15 on behalf of the Canadian Collieries Resources Limited.

16 This brief becomes Exhibit 56.

17 ---EXHIBIT NO. 56: Submission of Canadian Collieries  
18 Resources Limited.  
19  
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SUBMISSION OF CANADIAN COLLIERIES  
RESOURCES LIMITED

Appearances:

Mr. E.O.T. Simpson - Vice President, Mining.

THE CHAIRMAN: Yes, Mr. Simpson.

MR. SIMPSON: HISTORICAL REVIEW

Coal was produced in commercial quantities on Vancouver Island at the beginning of the last half of the nineteenth century. The industry prospered mainly under the Dunsmuir family for the remainder of that century and for the first ten years or so of the present one. Coal-mining initially centred around Nanaimo. The Comox coal-field, lying approximately 70 miles to the north of Nanaimo, was developed during the last quarter of the nineteenth century.

Canadian Collieries Dunsmuir Limited was created in 1910 to acquire from the late James Dunsmuir and his Wellington Colliery Company the coal-mining rights under the Esquimalt and Nanaimo Railway Land Grant on Vancouver Island, an area of approximately 1,850,000 acres stretching from just north of Victoria to the 51st parallel at Campbell River (Appendix "A").

The discovery, followed by the development, of the Californian oil-fields around 1913 brought the first serious competition to this then prosperous and developing coal industry. The main market for coal, San Francisco, was quickly eliminated, with inroads being made additionally into the bunker and local trade. Increased consumption resulting from the natural growth of population and industry offset the inroads made in other directions.







1 but with Vancouver and the Pacific North-West area  
2 generally becoming the dumping ground for surplus oil,  
3 the price of coal was forced down and kept down to  
4 unremunerative levels to remain competitive. In 1920  
5 the Company defaulted on its bonds and a financial  
6 reorganization involving a capital reduction was  
7 enforced. The difficulties experienced by Canadian  
8 Collieries were general to other smaller companies  
9 operating on Vancouver Island, and progressively over  
10 the years these companies ceased operating. In 1928  
11 Canadian Collieries purchased the Western Fuel Corporation,  
12 becoming thereby the dominant producer on Vancouver  
13 Island.

14 The depression years of the "30's" brought  
15 increasing difficulties to the coal industry resulting  
16 from over-production of oil both in the United States  
17 and in the oil producing countries of South America.  
18 A protective tariff was imposed on gasoline which, at  
19 the time of the outbreak of the Second World War,  
20 amounted to  $2\frac{1}{2}\text{¢}$  per gallon, and a further protection  
21 by way of a dump duty was levied bringing the total  
22 protective duty to around 6¢ per gallon. It had been  
23 constantly argued before governments that the oil  
24 companies were in a very favourable competitive position  
25 in that they were able to so regulate the price of fuel  
26 oil as to be constantly under the equivalent price  
27 of coal by making compensating adjustments in the price  
28 of gasoline, wherein they had a monopoly.

29 During the war the production and distribution  
30 of fuel over the whole country came under rigid government





1 control. Similar controls were applied in the United  
2 States on that country's entry into the war, resulting  
3 in protective tariffs and dumping duties becoming  
4 redundant, and they were rescinded.

5 The war years brought about a tremendous  
6 demand for fuel in general, particularly oil. It could  
7 be stated that the fuel most readily available and  
8 easily transported to the point of consumption was the  
9 fuel directed to be used, and in consequence of this  
10 the coal-mining industry experienced a considerable,  
11 even if partly artificial, revival both domestically,  
12 commercially and industrially.

13 In 1941 the Company acquired the assets of the  
14 McLeod River Hard Coal Company Limited at Mercoal,  
15 Alberta, with a view to its products replacing within  
16 a few years the expected lower production in the  
17 Nanaimo coal-field due to diminishing reserves of  
18 readily mineable domestic coal. By this acquisition the  
19 Company also extended its operations into the domestic  
20 and space heating markets of the Prairie Provinces and into  
21 Northern Ontario.

22 Though out of chronological order it is  
23 appropriate to record here, that, in 1953, the Company  
24 accepted an offer by the Foothills Collieries Limited  
25 to purchase the Foothills Mine properties and to assume  
26 its leases some 20 miles to the south of Mercoal. This  
27 mine produced identical coal from the same seam as that  
28 mined at Mercoal, serving the same markets. This  
29 purchase resulted in operating advantages to the Company,  
30 the elimination of intra-coalfield competition, and the







1 better servicing of customers during periods of peak  
2 demands in mid-winter.

3 As the war progressed controls tended to  
4 increase, accompanied by direct Government subsidies  
5 to ensure continued development for maintenance of  
6 production of coal. In order to ensure as soon as  
7 possible a return to peace-time conditions in the  
8 coal industry, the Government set up a Commission  
9 under Mr. Justice W.F. Carroll to "enquire into and  
10 report upon the problems of and matters pertaining to  
11 the coal industry in Canada, having regard, generally,  
12 to pre-war, present and anticipated post-war conditions  
13 and the probable future developments of Canada".

14 In its submission to the Commissioners Canadian  
15 Collieries Dunsmuir Limited laid heavy emphasis on the  
16 perils to the coal industry in Western Canada in general,  
17 and to the industry on Vancouver Island in particular, if  
18 foreign oil were allowed to be imported into Canada with-  
19 out restriction by way of tariffs or other means when  
20 peace-time trading conditions were resumed and war-time  
21 subsidies cancelled. In the Commission's majority  
22 recommendations the Chairman and Commissioner C.C.  
23 McLaurin made only slight reference to the widely varying  
24 problems of the coal-mining industry across Canada.  
25 They recommended the discontinuance of subsidies, the  
26 retention of the existing tariff on imported coal, and  
27 that aid, in the future, be given to the industry through  
28 transportation subventions. While the main report made  
29 reference to the threat from importations of foreign  
30 oil on both coasts, it is significant that the Chairman







1 and Commissioner McLaurin ignored this threat in their  
2 recommendations. In his minority report Commissioner  
3 A.J. Morrison separated the coal-mining industry in  
4 Canada into five sections, and recognized the threat  
5 of oil to the industry on Vancouver Island in his  
6 paragraph on that coal-field. He also appears to have  
7 recognized the limited benefits which would accrue to this  
8 coastal coal-mining industry through transportation  
9 subventions. The following is a copy of his recommendation  
10 on Vancouver Island:

11 "Production of the Vancouver Island fields has  
12 declined steadily for the past twenty years. The  
13 major factor in decline of demand for Vancouver  
14 Island coals has been competition offered by oil,  
15 which has won former export markets and entered into  
16 the home market, both in industrial and domestic  
17 consumption. Bunkerage demands have largely fallen  
18 off due to the same competition.

16 It must be recognized also however that the  
17 problems of the Vancouver Island fields are to a  
18 considerable measure production problems. Mining  
19 conditions are more difficult than in any other  
20 part of Canada. The exhaustion of the most favourable  
21 seams and areas has increased their engineering  
22 problems, and inevitably increased their costs.

20 Dominion Government assistance already extended  
21 to Vancouver Island mines includes production sub  
22 sidies, subsidies on coal delivered for ships'  
bunkerage, and subsidies designed to promote the use  
of Vancouver Island coals in coke production.

23 To the extent to which it might be decided as  
24 a matter of national policy that production from  
25 Vancouver Island fields should be maintained, it  
26 would appear that there is little remedy that  
27 can be found other than through continuation and  
28 extension of public assistance, either in the form  
29 of subsidies or protective policies designed to  
30 reduce competition offered by imported oil. It  
must be recognized however that the effectiveness of  
such policies would be limited in that it is outside  
the power of the Canadian Government to restore  
the export and bunkerage markets for coal which  
formerly existed.

It must be remembered that the Vancouver





1 Island coal-field played a very important part  
2 in the war emergency, and that it still is the  
3 only coal-field on the Pacific coast that has  
4 available facilities and supplies for taking care  
5 of Pacific demands. From the standpoint of  
6 security in a national emergency, Vancouver  
7 Island has assumed a new importance; during the  
8 war years excellent bunkering facilities were  
9 provided, not only for the handling of their  
10 own product but also for the shipment of coal  
11 brought in from the mountain regions of Alberta  
12 and British Columbia."

(Report of the Royal Commission on Coal,  
1946 Page 589).

Looking back now it would appear that this  
Commission sat 18 months to 2 years too soon for not  
long after the publication of their report oil was  
discovered in quantities in the Leduc oil-field,  
followed quickly by the discovery of other oil-fields  
in Alberta, accompanied by large increases in reserves  
of natural gas. The next decade witnessed the rapid  
displacement of coal by Canadian oil and natural gas in  
many of its long established markets, with no developing  
outlets to replace these losses. Thus, provisions made  
by the Government in 1946 for the welfare and orderly  
conduct of the industry in the post-war period quickly  
proved inadequate to meet the conditions which so  
rapidly developed after the discovery of oil at Leduc.

#### COAL PROPERTIES AND COAL RESERVES

##### PROPERTIES

##### VANCOUVER ISLAND

In addition to its coal-mining rights under  
the Esquimalt and Nanaimo Railway Land Grant, acquired  
from the Dunsmuir family, the Company also acquired  
extensive areas of crown granted lands mainly through  
its purchase of the Western Fuel Corporation.







The following tabulation summarizes these properties:

(see map attached).

1. Comox Area	665,000 acres
2. T'Sable River to Nanoose	335,000 acres
3. Alberni Area	162,000 "
4. Nanaimo-Wellington Area	494,000 "
5. Gulf Islands and outlying areas.	<u>1,011,000</u> "
	<u>2,687,000 acres</u>

#### ALBERTA

During the period of operating the Company's two mines in Alberta some 3,500 acres of coal leases were held at the McLeod River mine and some 2,000 acres at the Foothills mine. These leases were 'open' on the flanks and to depth. Following the closures of these two mines all leases underlain by coal recoverable only by underground mining methods are being surrendered as they fall due for renewal with the exception of 760 acres of coal lands at Foothills where the deposit of coal is at shallow depth suitable for strip mining. The leases covering this anomaly are being retained.

#### RESERVES

##### VANCOUVER ISLAND

Insufficient prospecting and drilling has been done in the undeveloped coal-fields within the Land Grant or elsewhere to enable accurate assessment of coal reserves to be made. The last survey of reserves was made in 1945 and is recorded as "having been prepared by Dr. B. R. Mackay for the Royal Commission on Coal, September, 1946". (Appendix A of the Commission's Report, Page 639). The estimate indicated total reserves of almost 350,000,000 tons, of which 50% could be considered recoverable and included all coal seams 2 ft.





or more in thickness, up to a maximum depth of 2,000 ft. At that time a seam 2 ft. 3 ins. in thickness was being worked in the Nanaimo area, giving a big percentage of high grade domestic lump coal and having a ready market, particularly in Seattle. The Seattle market was eliminated some years ago by the arrival of natural gas from the south. With the lump coal market elsewhere declining steadily and continuously there seems to be little justification now for including thin seams at depth in assessments of recoverable coal reserves under present known mining methods. Reserves submitted in the table hereunder, are based on Dr. Mackay's survey, with additions and deletions resulting from a moderate amount of diamond drilling during the intervening years, and with the eliminations of seams below 3 ft. in thickness. Deductions have also been made for reserves lost through mine closures and for production in the intervening years up to December 31st, 1959.

Coal Reserves - Vancouver Island

	Actual & Probable	Possible	Total
1. Comox Area	3,700,000	120,000,000	123,700,000
2. T'Sable River, Nanoose	7,750,000	38,000,000	45,750,000
3. Alberni	Insufficient data. No prospecting nor correlation work done.		
4. Nanaimo, Welling- ton, Gulf Islands and outlying areas.	Nil	26,000,000	26,000,000
TOTAL	11,450,000	184,000,000	195,450,000

It will be seen that total reserves of coal within the Land Grant are today estimated at close to





200,000,000 tons. Using a 50% recoverable ratio, mineable coal reserves can be estimated at 100,000,000 tons.

ALBERTA:

Coal leases in Alberta are mainly held from the Provincial Government, and tonnages of coal held by individual companies probably have little relation to reserves of coal in any coalfield in that Province. Suffice it to say then that the Company held leases at one time from the Provincial Government of Alberta estimated at 80/90,000,000 tons of coal at their McLeod River Hard Coal and Foothills mines in the Coal Branch area.

The area of 760 acres referred to in the previous section as being retained for a strip mine operation, is estimated to be underlain by 10,000,000 tons of coal.

Thus, adequate reserves are available to this Company in both Provinces for resumption of mining operations should a revival in the long term demand for coal develop.

PRODUCTION

The tables below record production of coal from the Company's Vancouver Island and Alberta mines:  
Nanaimo Area and Comox Area Mines, Vancouver Island.







1	<u>Year</u>	<u>Nanaimo</u>	<u>Comox</u>	<u>Total Vancouver Island</u>
2	1949	315,966	287,327	603,293
	1950	259,587	315,641	575,228
3	1951	205,519	334,628	540,147
	1952	93,958	309,475	403,433
4	1953	80,384	184,168	264,552
	1954	3,831	200,666	204,497
5	1955	5,415	204,369	209,784
	1956	5,266	195,081	200,347
6	1957	4,763	195,442	200,205
	1958	3,938	178,366	182,304
7	1959	3,241	146,225	149,466

8 McLeod River Hard Coal and Foothills Mines, Alberta.

9	<u>Year</u>	<u>McLeod River Hard Coal</u>	<u>Foothills</u>	<u>Total</u>
10	1949	307,786		307,786
11	1950	297,845		297,845
	1951	257,958		257,958
12	1952	258,574		258,574
	1953	214,302	75,426	289,728
13	1954	249,077	118,558	367,635
	1955	236,333	100,777	337,110
14	1956	259,003	104,871	363,874
	1957	233,804	73,509	307,313
15	1958	217,814	11,021**	228,035
16	1959	138,751*		138,751

17 \*Mine closed July, 1959 \*\*Mine closed February,  
1958

18 THE CHAIRMAN: Is the mining in Nanaimo and  
19 Comox still proceeding?

20 MR. SIMPSON: We have the Tsable River mine  
21 which Mr. Bonner referred to last; that is the only  
22 mine that can be called operating.

23 THE CHAIRMAN: What is it producing today?

24 MR. SIMPSON: It is in a temporary transition  
25 stage. The company stopped production last week.  
26 Production will be resumed under new management next  
27 month. When production was stopped last week it was  
28 producing up to 700 tons a day.

29 THE CHAIRMAN: Was that an application for  
30 a loan to the Dominion Government?





1 MR. SIMPSON: Yes.

2 THE CHAIRMAN: What does it propose to aim  
3 at in the way of production?

4 MR. SIMPSON: I think 60,000 tons a year.

5 THE CHAIRMAN: What was the last production?

6 MR. SIMPSON: I think in 1959 we produced  
7 149,000 tons. There is another misprint there; that  
8 1958 should be 1959.

9 The foregoing tabulations would indicate that  
10 from 1949 to 1959 the Vancouver Island mines had  
11 lost 75% of their markets compared with an apparent  
12 33-1/3% loss by the Alberta mines. It must be realized,  
13 however, that during this period the Company's Alberta  
14 operations were absorbing some of the markets available  
15 to the Nanaimo mines had reserves in the Nanaimo mines  
16 enabled them to remain in production. It will be noted  
17 that during the decade 1949/59 production from the Comox  
18 area decreased by very nearly 50%. Disregarding the  
19 influence of the Foothills mine on the total annual  
20 production from the Company's Alberta operations, the  
21 tabulation indicates a less rapid decline in its Alberta  
22 production over the same period. It should be pointed  
23 out, however, that in addition to benefiting from trans-  
24 fer to McLeod River wherever possible of Nanaimo coal  
25 outlets within the Company's control, the McLeod River  
26 mine, in common with all other operating domestic  
27 mines in Alberta, had their actual losses hidden and  
28 retarded by outlets made available to them from other  
29 mines closing down over the period. In broad terms,  
30 therefore, it may be deduced that the rate of decline







1 of markets has been uniform over Western Canada  
2 irrespective of type of coal produced and geographical  
3 location of mine. No doubt group or provincial  
4 production figures will more clearly demonstrate the  
5 above deduction.

6 COAL MARKETS AND THEIR DECLINE

7 VANCOUVER ISLAND

8 The differing characteristics of the Nanaimo  
9 and Comox coalfields enabled a very wide range of coals  
10 to be produced or designed to service the fuel needs  
11 of industry and population throughout British Columbia  
12 and into the State of Washington. The Wellington Seam  
13 in the Nanaimo coal-field produced a hard high-grade  
14 domestic coal, and the Douglas Seam in the same  
15 coal-field produced a high volatile free burning  
16 industrial grade of coal. The seams mined in the Comox  
17 Coal-field produced a medium volatile coking coal.  
18 Thus, by separate use or by blending, a very wide  
19 range of fuels could be marketed.

20 The principle outlets for Vancouver Island  
21 coals in the immediate post-war period were:

- 22 (1) Ships' bunkers  
23 (2) Railways  
24 (3) Export  
25 (4) Gas coal  
26 (5) Industrial  
27 (6) Cement kiln fuel  
28 (7) Institutional and Domestic

29 Brief comments on the above outlets:

30 (1) It was recognized that as soon as new post-war  
built vessels came into service in adequate numbers  
all the remaining coal-burning ships would be scrapped.  
Coal is not competitive as a ship's fuel.





1 (2) There were prospects of coal-burning  
2 locomotives being used for many years to come in spite  
3 of a swing to oil-fired locomotives, but following  
4 the production and the availability of heavy gravity  
5 oil in Alberta, big dieselisation programmes were  
6 started by the railways. The knell of the steam  
7 railroad locomotive, whether oil or coal fired, was at  
8 hand. Today there is not a steam railroad locomotive  
9 west of the Rockies, if, indeed, there is one in  
10 Western Canada.

11 (3) During the post-war build-up of Japanese  
12 industry and mineral production, intermittent cargoes  
13 of Comox coking coal were shipped to Japan to fill  
14 shortages as they appeared. This irregular outlet for  
15 Comox coal came to an end in 1953 when the Japanese  
16 internal supply became stabilised. Unfortunately  
17 Comox coal is almost identical in analysis with  
18 Japanese coking coal, and imports into that country  
19 since 1953 have been for blending purposes to develop  
20 required characteristics, and for up-grading for  
21 which purposes Comox coal was reported to be unsuitable.

22 (4) As natural gas becomes available in cities  
23 and in rural districts through development of nearby  
24 gas-field, or by pipeline transmission, it almost  
25 automatically replaces manufactured coal gas due to  
26 elimination of manufacturing costs and to it having  
27 double the heat content. The large gas coal market  
28 in Vancouver was lost to the coal industry with the  
29 arrival of natural gas in 1956.

30 (5) Coal for industrial purposes has been able to  
retain





1 a share of the industrial market in competition with  
2 the newer fossil fuels where industry is located on  
3 or within short distances of the mines and transportation  
4 costs have been low. Elsewhere in Canada Canadian coal  
5 has been kept competitive by means of rail freight  
6 subventions. Coal moving within and into British  
7 Columbia has never been eligible for freight subventions.  
8 Its use as an industrial fuel ceased in 1952.

9 (6) For very many years the B.C. Cement Company  
10 have burnt Vancouver Island coals (Nanaimo and Comox)  
11 exclusively. This Company has consumed up to 100,000  
12 tons per year. In the last few years cement kiln fuel  
13 has been the only outlet for slack coal for the Vancouver  
14 Island coal mines. Two expansion programmes by the  
15 Cement Company in the past decade have created a  
16 potential big increased demand for slack coal in complete  
17 reversal to the diminishing supply of that grade due  
18 to falling demand for higher quality and higher priced  
19 grades elsewhere. Thus, owing to uncertainty of  
20 regular supply, we are witnessing the loss of a major  
21 consumer of coal through an unadjustable imbalance of  
22 demand for the normal products of the mine. The  
23 resulting non-renewal of the Company's contract with  
24 the Cement Company expiring in May 1960, has brought  
25 about the current conversion programme of the latter  
26 Company to oil in lieu of coal.

27 (7) Coal continues to be used as a space heating  
28 fuel to a limited and diminishing extent in British  
29 Columbia. Fuel oil made considerable inroads into  
30 coal-burning installations in the first half of the







1 last decade, at which time some equilibrium between  
2 coal and oil seemed to have been established, but it was  
3 realized and feared that a number of consumers were  
4 probably only awaiting the arrival of natural gas to  
5 ascertain firm contract terms in order to decide on  
6 which fuel to modernize their heating plants. This  
7 premonition has proved correct. Gas was offered at  
8 attractive, and very probably at unremunerative terms  
9 to build up volume sales. Within another two years it  
10 is likely that only Government controlled buildings will  
11 be using coal for space heating. Pressure by management  
12 and labour and other extraneous considerations have  
13 forced governments to retain coal as heating fuel to a  
14 much greater extent than private or semi-public companies  
15 and institutions such as hotels, hospitals and universities,  
16 though all too many conversions have been made despite  
17 these protests. It could well be stated here that the  
18 Provincial Government of British Columbia have retained  
19 a higher proportion of their buildings on coal in the  
20 lower B.C. mainland area and on Vancouver Island than has  
21 the Federal Government.

22 The domestic market and the fuel chosen by  
23 householders follow no law of economics. Convenience  
24 is the general over-riding consideration. Coal is  
25 still the cheapest fuel to burn and so it is pre-  
26 dominantly burnt in the lower income bracket homes in  
27 the big cities, and by a few who have a favourable  
28 prejudice for what they claim is the more uniform heat  
29 provided by coal burning in open grate or in stoker grate  
30 furnaces compared with the intense burning and completely





1 dead alternations of oil and probably natural gas in  
2 thermostatically controlled domestic furnaces. Government  
3 subventions and subsidies cannot alter public preferences  
4 for the more costly fuels having the advantage of con-  
5 venience over coal.

6 ALBERTA:

7 Coal from the Val d'Or seam mined at the  
8 Company's McLeod River and Foothills mines was a strong,  
9 rugged, high quality domestic free-burning coal, suitable  
10 also for steam raising. The coal also stores well in  
11 winter cold or summer heat, with little degradation.  
12 Except in the Prairie Provinces it was more than  
13 competitive with all other Canadian domestic coals as  
14 far east as the Ontario Quebec border in Northern  
15 Ontario, and was the most popular domestic coal in  
16 British Columbia. The depredations of natural gas, from  
17 which there seems to be no reprieve, over the last three  
18 years in British Columbia and more recently in Winnipeg  
19 and Northern Ontario, have forced the closures of  
20 both these mines. There are no foreseeable alternative  
21 outlets for the products of these mines.

22 CLOSING OF MINES, REDUCED EMPLOYMENT,  
23 EFFECT ON RECRUITMENT

24 A mine closed down can never be re-opened due  
25 to collapse of roadways, settlement of workings and  
26 flooding. There were 72 underground mines, producing  
27 more than 10,000 tons of coal each per annum, operating  
28 in Western Canada in 1949. By the end of 1959 half were  
29 closed down.

30 Labour is the highest single cost item per ton  
of coal produced in underground mines.







1           The closing of mines therefore results in the  
2   loss of very large tonnages of developed reserves of coal  
3   and the loss of large areas of undermined coal which  
4   must be left as safety barriers between the old  
5   abandoned workings and any workings in adjacent or new  
6   mines.

7           A more serious result still is the displacement  
8   and uprooting of miners and their families from established  
9   homes to communities elsewhere where alternative  
10   employment may be available. Many of the older miners  
11   are unsuited to adopt new ways of earning a living,  
12   tending to become a burden on their communities in  
13   general. Others in Alberta are able to take advantage  
14   of that Government's rehabilitation scheme for training  
15   displaced miners in new trades. This scheme, combined  
16   with the Government's grants to assist in moving families  
17   from areas of no employment to areas where employment is  
18   available, has proved immensely costly without considering  
19   the direct costs of unemployment pay, welfare grants and  
20   the indirect costs of reduced spending power.

21           It is not surprising therefore that a lack of  
22   confidence has been engendered in the industry, accompanied  
23   by a virtual cessation of recruitment. In the Universities  
24   in Western Canada there is not a single coal-mining  
25   student in the engineering classes. It is believed  
26   that this is true of all Canada. For the last seven  
27   years the writer and Professor L.G. Crouch, U.B.C., have  
28   been joint members of a committee of the C.I.M.M. for  
29   judging student essays on coal-mining. There have been  
30   none to judge.



1 An industry which has no recruitment of  
2 younger people possessing technical or production skills  
3 into its ranks is confronted with a very grave threat  
4 to its existence and continuity. Confidence in the  
5 future of the industry must be restored before young  
6 people can be induced to take up coal-mining as a  
7 career. Without confidence there will be no recruitment.

#### 8 WAGES AND TRANSPORTATION

9 While wages are the largest single cost item  
10 in underground coal-mines, they are a comparatively small  
11 item in the production costs of oil and gas. The price  
12 of coal is, therefore, more sensitive to wage changes  
13 than the price of other fuels. Long term contracts based  
14 on stable mine prices cannot be made. Oil companies,  
15 and more particularly, natural gas companies, are in a  
16 very advantageous position with their ability to give  
17 long term contracts with stable prices, or at least,  
18 prices with comparatively minor fluctuations.

19 Companies producing energy in competition with  
20 coal, such as oil, natural gas and electricity, almost  
21 without exception control their own transportation or  
22 transmission systems. Coal, being a bulk commodity,  
23 is tied to the railroads for all but short distance  
24 hauls. The industry has little, if any, effectual say  
25 in the freight charges it has to bear. This is another  
26 factor precluding long term contracts where rail hauls  
27 are involved. Many cases can be quoted where freight  
28 charges form more than 50% of the consumers' delivered  
29 cost of coal.  
30







## SUBVENTIONS

As soon as coal is moved any distance from the source of production transportation charges quickly raise the cost vis-a-vis competing fuels to a point where coal becomes uncompetitive. The unfortunate location of the Canadian coal-fields, generally well over 1,000 miles from larger industrial centres, forced the Government many years ago to help the industry by way of rail subventions to meet competition from foreign imports. Subventions were designed for Western Canada to make its coal competitive mainly in Ontario and for Maritime coal in Quebec.

In order to stimulate the export of coal the Federal Government also offered direct subventions to producing companies up to \$2.50 per ton. The failure of the industry to develop any significant export trade was an indication of the inadequacy of this subvention. This situation changed approximately two years ago when, as a result of the upsurge of Japanese industrial production, and, in particular, as a result of a shortage of suitable coking coal for that country's expanding steel industry, an opportunity came to develop an export trade with Japan. In order to acquire this export business the Federal Government was compelled in 1958 to increase the export subvention to \$4.50 per net ton. The following comments are probably appropriate and relevant to this paragraph:

(1) It would appear from published statistics that the indirect assistance to the underground mines by way of railroad subventions to points east of Winnipeg,







1 and the export subvention, are generally in excess  
2 of the labour cost involved in producing the coal  
3 eligible for these subventions.

4 (2) It must be recognized that the underground  
5 coal-mines are increasingly dependent on subventions  
6 to maintain the necessary volume of production to  
7 remain operating and to provide labour with an adequate  
8 annual wage.

9 (3) It can be inferred from Dominion Government  
10 annual reports that, in all likelihood, the Canadian  
11 coal industry would lose up to 25% of its current  
12 production if subventions were withdrawn. The figures  
13 for 1959, when published, could well show a higher  
14 percentage in view of additional conversions to  
15 natural gas within the country and increased tonnages  
16 exported to Japan.

17 In contradiction to apparent generosity of  
18 the Government in providing subventions there is an  
19 apparent lack of assistance to the industry of Western  
20 Canada, at least within the immediate home territory  
21 of its producing mines. It must be admitted that the  
22 capital cost of heating installations in new buildings  
23 is lower with oil and gas burning equipment than with  
24 coal burning equipment, but the conversion of even  
25 comparatively modern heating plants from cheap coal  
26 requiring no Government subventions to oil or gas  
27 burning plants is difficult for the managements of  
28 coal-mining companies to understand. It would appear  
29 that the Government is assisting the coal industry  
30 by costly subventions on the one hand, and approving





1 conversion schemes which do a great deal of damage  
2 to the industry within its own territories, on the other  
3 hand. What is being gained by subventions is being  
4 largely lost by conversions.

5 CONCLUSION AND SUGGESTED CORRECTIVE MEASURES  
6 TO AID AND RE-ESTABLISH THE INDUSTRY

7 If it is recognized that a country's  
8 industrial power and military strength are dependent  
9 on its heavy industries, particularly steel, which in  
10 turn requires the backing up of adequate reserves and  
11 productive capacity of coal, then a coal industry in  
12 a reasonable state of well-being is a minimum require-  
13 ment. It is a weakness in Canada's industrial make-  
14 up that, except in the Maritimes, all her coke and  
15 coal requirements for steel making are dependent on  
16 United States coal, and a very high proportion of her  
17 industrial coal requirements in Ontario and Quebec are  
18 obtained from the U.S.A

19 The many outlets for coal which have been  
20 lost during the post-war period to the newer fuels have  
21 been outlined in the preceding paragraphs. These are  
22 unlikely to be regained by coal. More will be lost in  
23 the coming years unless vigorous measures are taken  
24 to reverse the trend. It seems illogical, for example,  
25 for various Government departments to authorize the  
26 conversion of coal-burning plants within the area of,  
27 or reasonably adjacent to coal-fields, while the  
28 Government through the Coal Board is paying out large  
29 amounts in subventions to provide and safeguard outlets  
30 in distant places and for distant countries.







1 Coal, to be an economic fuel, must be  
2 consumed at or near the point of production. It is an  
3 expensive commodity to transport compared with oil,  
4 natural gas and electric power, and if transported long  
5 distances requires outside assistance to remain  
6 competitive with other fuels.

7 The industry is now at the minimum production  
8 level to remain extant. It cannot retain what  
9 stability it has nor the confidence of its consumers  
10 if any more mines close down.

11 It is strongly recommended for immediate or  
12 near term action that:

13 (1) The Federal Government maintain all current  
14 subventions at their present levels to retain existing  
15 markets, and make compensating adjustments in sub-  
16 ventions for freight rate changes in the event of  
17 increases being imposed on the industry.

18 (2) Conversions of existing coal-burning plants  
19 to other fuels be discontinued in all Federal buildings  
20 and establishments. Provincial Governments to be  
21 appealed to to act similarly with a special appeal to  
22 the Governments of the coal producing provinces,  
23 emphasising their joint responsibilities in assisting  
24 the industry within their own provinces.

25 (3) A percentage (at least one third) of all new  
26 buildings and establishments to be heated by coal  
27 All new government buildings within the limits of  
28 operating coal-fields dependent on underground mines  
29 for their production also to have coal-burning  
30 equipment installed for heating. Provincial Governments





1 to be requested to follow any such policy adopted by  
2 the Federal Government.

3 The foregoing recommendations can only be  
4 considered as short term measures to preserve the  
5 industry as it exists today. This period, probably  
6 lasting for several years, must be utilized to the full  
7 in investigations for, and the establishment of, new  
8 outlets for coal as a fuel, or for its development and  
9 use as a raw material for industry.

10 Recommendations for the long term stable  
11 redevelopment of the coal industry are presented hereunder:

12 (1) The greater use of coal as a fuel for power  
13 stations, with some restriction if necessary placed on  
14 the use of natural gas in the steam generating plants.

15 (2) Direct Government help in the establishment  
16 of an integrated steel industry in Western Canada.

17 (3) Research work to be directed or instituted  
18 into uses of coal for other purposes than as a fuel.  
19 Since the basic constituents of the fossil fuels are  
20 carbon and hydrogen, it would seem that coal could well  
21 be as good and efficient a raw material for the synthetic  
22 industry as oil; so also might its development parallel  
23 that of oil in the chemical field if research work were  
24 adequately directed to these ends.

25 Regard for cost and for the limits to the  
26 amount of money that can be reasonably appropriated for  
27 research work must shorten any list of suggestions  
28 for research work on coal and its uses.

29 Markets which have discarded coal as their  
30 fuel are not likely to revert. If the industry is to





1 revive, or even survive, present outlets and present  
2 uses for coal must be retained and expanded at least  
3 in proportion to the expansion of the country's economy.  
4 If the industry is to prosper again and regain its  
5 standing and importance in the national economy, new  
6 uses and new markets must be found. Very few basic  
7 industries today can afford not to spend large sums  
8 of money annually on research into modernizing their  
9 products, finding new uses for them, and in improving  
10 means of production. Governments, too, spend large sums  
11 of money in furthering this work. The coal industry is  
12 no different from other basic industries, and it is  
13 in dire need of similar stimulants from research work to  
14 assist its re-establishment as a progressive, prosperous  
15 and expanding industry.

16 The Canadian Collieries, while operating in  
17 Alberta and on the Pacific Coast, covered a wider field  
18 of operating conditions and a wider range of markets than  
19 any other western coal-mining company. The problems and  
20 difficulties which have been confronting the industry for  
21 the past decade, while varying in intensity as between  
22 one coalfield and another, are nevertheless common  
23 to every coal-field and to every operator. The industry  
24 cannot survive on any local basis restricted to a few  
25 mines serving a particular market. The industry must  
26 have as broad an operating basis as possible for  
27 stability, to retain the confidence of users of coal  
28 and to encourage recruitment of technical staff and man  
29 power to replace wastage. These requirements are  
30 interdependent.







1           Regard must be had, too, for the fact that  
2           the reserves of coal mineable by strip methods are  
3           very limited compared with the vast reserves of coal  
4           in Canada, extraction of which can only be accomplished  
5           by underground mining methods. These older and better  
6           quality coals lie at depths well beyond stripping  
7           limits. It is seriously advocated by this submission  
8           that provisions for the long term welfare of the  
9           industry must be directed towards the mining of the  
10          vast reserves of the deeper deposits of our higher  
11          quality coals.

12           THE CHAIRMAN: That is a very thorough  
13          statement, Mr. Simpson, but there are some questions I  
14          would like to ask you.

15           What is the general character of your mining  
16          on Vancouver Island? Is it largely mechanization, or  
17          do you have the older method?

18           MR. SIMPSON: It is largely mechanized.

19           THE CHAIRMAN: When you say "largely mechanized",  
20          do you still have mining by the individual miner by  
21          the pick and shovel?

22           MR. SIMPSON: Oh, very little. It is reduced  
23          to a minimum in places where you cannot get into a  
24          fault or where there is a tricky roof and you cannot  
25          get mechanized mining equipment into it.

26           THE CHAIRMAN: What percentage of the mining  
27          is mechanized?

28           MR. SIMPSON: I would say at least 90 percent  
29          is mechanized.  
30





1 THE CHAIRMAN: Do you have room and pillar?

2 MR. SIMPSON: Room and pillar method of  
3 working, and joy loaders and duckbill mining equipment.

4 THE CHAIRMAN: What percentage do you remove?

5 MR. SIMPSON: Our recoverage, I think,  
6 latterly has been 90 per cent. It averages 85 per cent.

7 THE CHAIRMAN: What depth is that generally?

8 MR. SIMPSON: Down to about eleven hundred  
9 feet. We are under eleven hundred feet of cover at  
10 the moment.

11 THE CHAIRMAN: What generally is the slope of  
12 the seams?

13 MR. SIMPSON: It varies from about 12 to  
14 25.

15 THE CHAIRMAN: Does any of it run under the  
16 sea?

17 MR. SIMPSON: In Nanaimo some of it is under  
18 sea, but we haven't mined that for years.

19 THE CHAIRMAN: When you speak of resources  
20 you mean resources confined to land areas?

21 MR. SIMPSON: Yes.

22 THE CHAIRMAN: What about the average depth  
23 of the mining?

24 MR. SIMPSON: Five hundred to six hundred  
25 feet.

26 THE CHAIRMAN: Are you troubled with weak  
27 roofs or floors?

28 MR. SIMPSON: Yes, roof conditions are poor  
29 and the seams have been somewhat faulted.







1 THE CHAIRMAN: What was your average cost  
2 of producing a ton of coal at the pithead during 1959?

3 MR. SIMPSON: Around about six dollars or  
4 seven dollars a ton -- six dollars fifty cents.

5 THE CHAIRMAN: These mines you have closed,  
6 they are accessible from other entrances, are they not?

7 MR. SIMPSON: No.

8 THE CHAIRMAN: They can't be tapped in any  
9 other direction than the original one.

10 MR. SIMPSON: You couldn't retap them or  
11 re-open them because they are now flooded.

12 THE CHAIRMAN: That is your present workings  
13 will be flooded?

14 MR. SIMPSON: The present workings at the  
15 Tsable River mine are in a state of transfer from one  
16 managementship to another.

17 THE CHAIRMAN: I am dealing with mines generally.  
18 These two you have closed in Alberta, say.

19 MR. SIMPSON: Oh, yes, they are under water.

20 THE CHAIRMAN: You have great reserves there.  
21 Those reserves are capable of being reached, are they  
22 not?

23 MR. SIMPSON: Yes, they could be reached.  
24 They will be reached from other outlets, yes.

25 THE CHAIRMAN: So apart from the expense of  
26 opening the mine, all you lose is the barrier between the  
27 old mining area and the new areas?

28 MR. SIMPSON: Yes, and the reserves that  
29 you have developed and not mined, which are not very  
30 extensive.





1 THE CHAIRMAN: Within the mined area.

2 MR. SIMPSON: Yes.

3 THE CHAIRMAN: Are these particular areas  
4 subject to water percolation in quantity?

5 MR. SIMPSON: Big quantities of water.

6 THE CHAIRMAN: They couldn't be pumped out?

7 MR. SIMPSON: It would be very costly pumping  
8 them out, because the make of water is very heavy at  
9 the same time.

10 THE CHAIRMAN: I don't mean continuous pumping  
11 but in the event of demand coming in for coal.

12 MR. SIMPSON: We would have to pump twenty-  
13 four hours a day.

14 THE CHAIRMAN: How long do you think this  
15 competition of gas an oil and electricity will last?

16 MR. SIMPSON: Well, that is a question I am  
17 hardly capable of answering; but judging by the rate  
18 at which gas is being discovered, especially in Northern  
19 British Columbia, it is going to be a long time.

20 THE CHAIRMAN: I have seen estimates of from  
21 twenty-five to fifty years at least. Would you quarrel  
22 with those figures?

23 MR. SIMPSON: No.

24 THE CHAIRMAN: Then it would be necessary  
25 to maintain the coal operations as they are today at  
26 high subventions costs. Would you consider that from a  
27 business point of view to be justifiable.

28 MR. SIMPSON: I think so, I have said in  
29 this report that twenty-five per cent of the production  
30 would be lost to the coal mining industry if subventions





1 were withdrawn, therefore seventy-five per cent of  
2 the industry -- the subventions are not only helping  
3 the particular coal but they are helping the whole  
4 industry generally.

5 THE CHAIRMAN: Up to the present time there  
6 has been very little compunction on the part of the  
7 mines which have been closed and men have been absorbed  
8 and disposed of; there has been no very great outcry  
9 in this Province has there?

10 MR. SIMPSON: Comparatively few mines have  
11 closed in this Province through economic causes.

12 THE CHAIRMAN: Of course, I haven't read  
13 this submission very carefully and critically, but I  
14 gathered that although some of the mines were worked  
15 out your substantial diminution of production has run  
16 back fifteen years, more especially in the last ten  
17 years.

18 MR. SIMPSON: Our production was very high  
19 in the last ten years, I would say, and it happened  
20 particularly in the Nanaimo area that demand has kept  
21 pace with the exhaustion of the mines

22 THE CHAIRMAN: Is your plea directed solely  
23 to the fact that it is a possible reserve of fuel  
24 and that ultimate need is enough to maintain an  
25 artificial production during these intervening years,  
26 or is there any special hazard?

27 MR. SIMPSON: I don't think natural gas is  
28 going to replace coal for steam-making purposes.

29 THE CHAIRMAN: Steam-making purposes will  
30 always require some coal as far as we can see at the







1 moment.

2 MR. SIMPSON: Yes.

3 THE CHAIRMAN: So I rather gained the impression  
4 that we can look upon coal for metallurgical purposes  
5 as furnishing one permanent demand for that substance.

6 MR. SIMPSON: Yes, but it really hasn't  
7 developed in Western Canada yet. I think in the next  
8 five or ten years it could well develop, and that would  
9 warrant keeping them open for that alone.

10 THE CHAIRMAN: That would require a selection  
11 of those which are good coking coals.

12 MR. SIMPSON: Maybe, yes. Those are the mines  
13 which are getting most of the subventions, too

14 THE CHAIRMAN: It has been said that the  
15 requirement in the defence of the country might do it.  
16 But what was the demand for coal directed to during the  
17 last war, who were the users of great quantities of coal?

18 MR. SIMPSON: I was not in the country in the  
19 last war, sir, but I would say a general expansion in  
20 industry ...

21 THE CHAIRMAN: Take the railroads.

22 MR. SIMPSON: Well, there was tremendous  
23 expansion in the railroads.

24 THE CHAIRMAN: Take this suggestion, that a  
25 war should break out tomorrow. How much coal would  
26 the railways be able to use in the next few years?

27 MR. SIMPSON: Not a great lot, because there  
28 are very few coal locomotives.

29 THE CHAIRMAN: Would you say in that respect  
30 it would justify the maintenance of the coal mines which





1 are operating today?

2 MR. SIMPSON: Take the example of the British  
3 Columbia cement company down here in Bamberton.

4 THE CHAIRMAN: The railways in this country  
5 were tremendous users of coal from east to west.

6 MR. SIMPSON: Yes.

7 THE CHAIRMAN: They were the primary purchasers  
8 in Alberta and British Columbia. Why should they change  
9 when they have oil?

10 MR. SIMPSON: I see no reason why they should  
11 change.

12 THE CHAIRMAN: So you can rule out coal as  
13 far as the railways are concerned for defence.

14 MR. SIMPSON: Yes.

15 THE CHAIRMAN: Let's take the naval units.  
16 What do they burn now?

17 MR. SIMPSON: I don't think the Navy has burned  
18 a ton of coal in the last thirty years, sir. I don't  
19 think the Navy burned a ton of coal in the last war.

20 THE CHAIRMAN: What about the Merchant Marine?

21 MR. SIMPSON: I stated that was unsuitable.

22 THE CHAIRMAN: So these three customers can  
23 be written off as far as a necessity for maintaining  
24 coal for defence purposes may be considered. What else  
25 would be so vital that it couldn't be supplied by oil  
26 and gas and electricity?

27 MR. SIMPSON: Steel.

28 THE CHAIRMAN: That is a permanent source of  
29 demand for coal. Apart from that, what would there be?  
30







1 MR. SIMPSON: Power plants.

2 THE CHAIRMAN: There is a demand, a competitive  
3 position of coal in certain situations and power plants,  
4 yes. Remember, they do use oil and gas and they do  
5 use hydro-electric, but it seems to me that thermal  
6 power from the use of coal is one of the future uses  
7 that can be looked to. Can you suggest anything else?

8 MR. SIMPSON: There are quite a few installa-  
9 tions in this part of the Province that have kept their  
10 coal-burning equipment ready in case of emergency. For  
11 instance, I believe the Vancouver General Hospital has  
12 still kept its coal-burning equipment there in case of  
13 emergency, especially in the case of enemy bombing and  
14 breaking a gas line.

15 THE CHAIRMAN: That means coal has become  
16 a sort of standby.

17 MR. SIMPSON: I believe in the last war in  
18 this country the Province directed the people to use a  
19 certain fuel where that fuel was local and most readily  
20 available. It wasn't up to the fuel-burner's choice,  
21 it was up to the Government's direction.

22 THE CHAIRMAN: Would you put any upper limits  
23 on the amount of subventions that the Government should  
24 give private industry to maintain its life in an un-  
25 economic condition?

26 MR. SIMPSON: I would hate to advise the  
27 Minister of Defence in that direction, but I do think  
28 that as far as export of coal is concerned we have  
29 very nearly got to their upper limit.  
30





1 THE CHAIRMAN: Your costs are between  
2 six dollars and seven dollars a ton?

3 MR. SIMPSON: Yes.

4 THE CHAIRMAN: Let's say six dollars a ton.  
5 Suppose they went up to ten dollars, do you still say  
6 that an additional four dollars should be granted by  
7 the Dominion Government?

8 MR. SIMPSON: It depends on the reason why  
9 they went up to ten dollars.

10 THE CHAIRMAN: Your expense of mining, you  
11 said, was considerable and might increase. Suppose it  
12 did increase?

13 MR. SIMPSON: We would go out of business.  
14 Our Tsable River mine has a lower cost. While it  
15 didn't have a high output financially, it did have  
16 a lower cost, and that is the reason why it survived  
17 longer than the other mines.

18 THE CHAIRMAN: I noticed you had reference to  
19 increasing cost of coal, but it is rather remarkable  
20 that in the United States for the past fifteen or  
21 twenty years coal has remained in price almost constant.  
22 What would you attribute that to?

23 MR. SIMPSON: The ideal conditions of the  
24 American coal fields lend themselves to high mechanization  
25 in a way that our pitching seams and not so extensive  
26 mines occur in Canada. The conditions there do not  
27 prevail in Canada.

28 THE CHAIRMAN: You mining conditions even on  
29 this Island and certainly in Alberta might bring you to  
30 the point where your costs would increase substantially,





1 and I would say from what you told me that if they  
2 did increase to ten dollars a ton you would go out of  
3 business.

4 MR. SIMPSON: We would go out of business.  
5 I don't think we would have any particular justification  
6 for going to the Government for help in that case.

7 THE CHAIRMAN: From the point of view of  
8 economy of the country as a whole there is a limit  
9 beyond which you should not go or should not ask the  
10 Government to go.

11 MR. SIMPSON: I would agree with that  
12 statement, yes. I agree that there is a difficulty  
13 in arriving at that limit.

14 THE CHAIRMAN: What would you say was the  
15 responsibility of the Province to share in that problem  
16 of maintaining the mines?

17 MR. SIMPSON: That has always been a very  
18 great problem in the coal industry, because the coal  
19 industry has a fifty cent tariff, say, on American  
20 imported coal, and that is a matter of Federal Government  
21 control, not Provincial Government control. I am  
22 talking about the National coal industry.

23 THE CHAIRMAN: Into the Province of Alberta?

24 MR. SIMPSON: No.

25 THE CHAIRMAN: Or Saskatchewan.

26 MR. SIMPSON: No.

27 THE CHAIRMAN: Or Manitoba?

28 MR. SIMPSON: No. I think the Provincial  
29 Government has a responsibility, but when the Government  
30 does impose a fifty cent tariff it is a Federal matter.







1 THE CHAIRMAN: We are not dealing with the  
2 importation of American coal, we are dealing with the  
3 competition of our own fuels, that is the competition  
4 which is driving you from your markets, not the  
5 American coal.

6 MR. SIMPSON: In the years before the second  
7 world war I think I said that the Government imposed  
8 a tariff of two and a half cents a gallon to protect  
9 the coal industry from dumped importations. The  
10 Provincial Government at that time were powerless to  
11 act in a Federal matter.

12 THE CHAIRMAN: I am trying to differentiate  
13 between competition from a foreign fuel and competition  
14 from a domestic fuel, because that is the difficulty  
15 today, the domestic fuels which are coming out of  
16 Alberta and Saskatchewan. What would you say was the  
17 position of the provinces towards that.

18 MR. SIMPSON: I don't think the Province can  
19 do anything, because it can't impose any duty or tariffs  
20 against this coal coming in, and if a purchaser wishes  
21 to buy Alberta coal, then he can.

22 THE CHAIRMAN: Do you think the Dominion  
23 could?

24 MR. SIMPSON: Not in the country, no, sir.

25 THE CHAIRMAN: So so far as that goes, there  
26 is an inequity in the business of power?

27 MR. SIMPSON: I think the provinces are  
28 equally responsible for the coal industry as the  
29 Government is.

30 THE CHAIRMAN: The Dominion Government?





1 MR. SIMPSON: Yes. The Dominion Government  
2 subventions have never been imposed to protect one  
3 Province against another, they were put in to make  
4 Canadian coal competitive with American coal.

5 THE CHAIRMAN: That was the original  
6 basis, but that has been superseded today, and in the  
7 markets of Ontario American coal is being driven out  
8 by Canadian gas, chiefly.

9 MR. SIMPSON: Yes. I think the last  
10 subventions of two years ago were done to protect  
11 Canadian coal against American coal.

12 THE CHAIRMAN: A large percentage of those  
13 former importations failed. If you look at how much  
14 American coal was imported last year -- I haven't the  
15 figures at the moment -- you will see that they have  
16 suffered a very substantial reduction. I think it  
17 went down to twelve million; it had been up to almost  
18 twenty million, and it is on this basis that I am  
19 asking those questions. Your competitor is not foreign  
20 oil or foreign coal, it is domestic gas and oil.

21 MR. SIMPSON: Yes, here in British Columbia  
22 I agree with that statement, but not to Canada as a whole.

23 THE CHAIRMAN: Yes, in 1958 the importations  
24 were 11.8 million, as against twenty five and a half  
25 million in 1947, 1948. So Alberta gas and Alberta oil  
26 have created a new situation, and it is on that  
27 assumption that I have been asking you some of these  
28 questions, and I gather from you that on that footing  
29 the interest of the provinces is more or less on a  
30 parity with that of the Dominion.







1 MR. SIMPSON: I think the situation in  
2 Ontario is very different to what it is here.

3 THE CHAIRMAN: It is different in this  
4 respect, that the American coal is very cheap.

5 MR. SIMPSON: Yes.

6 THE CHAIRMAN: But so is Canadian gas.  
7 You say if the industry is to prosper new uses and  
8 new markets must be found. What uses and what markets  
9 are you thinking of there?

10 MR. SIMPSON: I am thinking of the synthetic  
11 industry there.

12 THE CHAIRMAN: My information is that in  
13 synthetic industry oil can do everything that coal can  
14 and do it much more cheaply.

15 MR. SIMPSON: I don't know the costs, sir.  
16 I come from the old country where they say that coal  
17 can do everything that oil can do.

18 THE CHAIRMAN: In any event, does such an  
19 industry in its conversions, demands for products,  
20 by-products of coal call for any substantial quantity  
21 of coal?

22 MR. SIMPSON: I believe a ton of coal has an  
23 equivalent value of thirty-five gallons of oil.

24 THE CHAIRMAN: My information is that even  
25 if we accept that the demand couldn't replace the demands  
26 for other kinds of uses, fuel uses, heating uses.

27 MR. SIMPSON: I don't think it could replace  
28 it, but the coal industry is in such a state that any  
29 little help is going to be very effective.

30 THE CHAIRMAN: You speak about the Government





1 approving conversions schemes from coal to oil, coal  
2 to gas. How do they approve? That can't possibly  
3 apply to private conversion.

4 MR. SIMPSON: No, I am talking about a lot  
5 of conversions that have taken place here on this  
6 coast in the last ten years about which I have had many  
7 facts from the Provincial Government.

8 THE CHAIRMAN: You mean Provincial institutions?

9 MR. SIMPSON: Army camps, hospitals, Government  
10 institutional buildings, the Department of Veterans  
11 Affairs shore institution. I have facts from the  
12 Provincial Government to try and stop conversions.

13 THE CHAIRMAN: How far do you think the  
14 Government should go to enable the Japanese to carry  
15 on their steel production with a view, among other  
16 things, to shipping some of the products to Canada?

17 MR. SIMPSON: My own private opinion is that  
18 the Government has gone about as far as they should go  
19 now. I think they said that when the cost of subventions  
20 reaches the cost of labour then the limit has been  
21 reached.

22 THE CHAIRMAN: You wouldn't exceed the cost  
23 of labour as a principle.

24 MR. SIMPSON: That is my private opinion, yes,  
25 sir.

26 MR. GUNN: I have no questions, Mr. Chairman.

27 THE CHAIRMAN: Thank you very much, Mr.  
28 Simpson.

29 MR. ELLIS: Mr. Commissioner, I would like  
30





1 to call upon Mr. T.C. Boyd to present a brief on  
2 behalf of the Western Canada Fuel Association.

3 This brief becomes Exhibit 57.

4  
5 ---EXHIBIT NO. 57: Submission of Western Canada  
6 Fuel Association.  
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SUBMISSION OF WESTERN CANADA  
FUEL ASSOCIATION

Appearances:

Mr. T.C. Boyd

MR. BOYD: Sir: This Association is of the opinion that in any examination of the vast energy resources of Canada, it must be apparent that, in the past, Coal has played a vital role. Given some assistance to keep the industry alive, Coal can be in a position to play the far greater role that it must eventually have to play. Without question, coal reserves are enormous. We feel, therefore, it would be a sad commentary on the affairs of Canada, blessed as it is with these tremendous reserves of energy, if they are allowed to remain comparatively ignored and unused and the present industry closed down and become unavailable in case of emergency. We feel that such a condition is unthinkable, yet such a situation is already in the advanced stages of development today.

A healthy coal industry is of benefit to many facets of the Canadian economy, and its retention should be one of the first objects of our Federal authorities. Coal would be indispensable in the event of a sudden national emergency and, knowing how vital it was in the last world war, it would have to take a similar role in the event of a further national emergency.

It is possible, that, on account of increased demands, competitive fuels may so increase in price,





1 coal would be the cheapest fuel. In the interval,  
2 if these competitive fuels are so priced as to make it  
3 difficult for coal mines to continue in operation, then,  
4 when the need arises, it would be very costly, if not  
5 impossible, to re-open the coal mines to give the  
6 fuel users a cheaper fuel. Consideration should be  
7 given to this aspect of the situation for, once this  
8 industry is allowed to die, it could not be revived  
9 easily. Our fuel situation is vulnerable when we allow  
10 one or two fuels to gain a captive market.

11 One method of keeping coal mines operating is  
12 to have all Government heating plants, whether National  
13 Defence, Dominion buildings or Provincial and City  
14 buildings, reserved for coal heating. We urge that  
15 the Dominion Government do all in its power to promote  
16 the use of coal in such Dominion buildings and also  
17 to encourage the Provincial Government to do the same.  
18 When planning new public buildings, preference should  
19 be given to the use of coal. This is important because  
20 the power of competitive fuels has so influenced our  
21 architects and engineers that coal has been unfairly  
22 treated as a relic of the past instead of the most  
23 reliable source of heat and energy. We cite as an  
24 indication of this tendency the report that the R.C.A.F.  
25 station at Saskatoon, presently consuming 14,000 to  
26 18,000 tons of coal per annum, is being converted to  
27 natural gas. The Dominion Coal Board some years ago  
28 assured the coal industry that where possible all  
29 R.C.A.F. stations would be retained on coal as a  
30 measure of support to them. We therefore find it most







1     disquieting that thought is now being given to convert  
2     to another fuel at Saskatoon and we submit that,  
3     whatever considerations are involved in this respect,  
4     they are far outweighed by the importance of retaining  
5     this R.C.A.F. base on coal and its consequent contribution  
6     to the wellbeing of this vital industry.

7             We feel that our Federal Government can  
8     assist greatly the coal industry by setting the example  
9     and retaining in its own institutions, in the various  
10    branches, coal-burning equipment.

11            May we be allowed to say that the Government  
12    policy of granting substantial subventions on coal  
13    shipped to Japan appears contradictory and enigmatic when  
14    the Government on the other hand displaces Canadian coal  
15    by the use of competitive fuels, withdrawing from the  
16    coal industry tonnages in our own country that are a  
17    real factor in keeping coal mines operating.

18            We submit that the marketing and distribution  
19    of coal in Canada is a positive contribution to a healthy  
20    economy, for it involves -

- 21           (a) steady employment of large forces of labour at  
22           production centres;
- 23           (b) important source of freight revenue for  
24           Canada's railways and employment for rail  
25           crews, etc.
- 26           (c) larger expenditure for salaries and wages,  
27           taxes and licences in distribution centres  
28           than for competitive types of fuel; and
- 29           (d) using the cheapest form of heat, in spite of  
30           the claims of so-called modern fuels.

31            We feel that due consideration should be  
32    given to the fact that approximately 70% of all moneys  
33    received in the marketing of coal is paid out in wages.





1 This money is retained in Canada as purchasing power  
2 by Canadians of Canadian merchandise.

3 In contrast, it is true that once capital  
4 expenditures have been made, fuels transported by  
5 pipeline for use in Canada involve the employment of  
6 little Canadian labour and make a small contribution  
7 to a wholesome national economy. Much of the pipeline  
8 revenue, in the form of interest and dividends, is  
9 drained out of the country to non-resident holders of  
10 stocks and bonds.

11 We further submit that the present system by  
12 which natural gas is allowed to be marketed in Canada  
13 constitutes unequal and unfair competition for the  
14 coal industry. For instance, in the City of Vancouver  
15 the average domestic user of natural gas is paying \$1.35  
16 per MCF, yet in this same city natural gas is being  
17 purchased by some of our largest fuel-using institutions  
18 at 35¢ per MCF-75% off the price. (This can be expressed  
19 in another way by saying that the price to the domestic  
20 consumer is being marked up 300% over the large consumer  
21 price). We know that quantity discounts are common but  
22 we have no knowledge of a bulk product being sold at  
23 so huge a discount. Competitive fuels, coal and oil,  
24 seldom carry a quantity discount of even half of 75%.  
25 When such a discount is used to eliminate competition  
26 and it is done at the expense of the small consumer,  
27 then we submit it is not in the best interests of our  
28 economy and should not be permitted to a Public Utility  
29 Company.

30 Recently, when the representatives of the





1 B.C. Electric appeared before the Public Utilities  
2 Commission in connection with their plans to bring  
3 natural gas to Victoria, they stated that this service  
4 could only be accomplished with a substantial sum of  
5 money. They further stated that it would be tragic  
6 if the B.C. Electric were to spend these considerable  
7 funds in the belief it would be able to sell natural  
8 gas at a certain price, and were to find it could not  
9 sell economically at those prices because the Pipeline  
10 Company had miscalculated and had to raise its rates  
11 to the B.C. Electric to keep going. If that happened  
12 various courses would be open to raise the rates to gas  
13 consumers, which might result in smaller sales and a  
14 still worse situation for both the Pipeline Company and  
15 the B.C. Electric, or raise its rates on its electricity  
16 consumers to compensate for the deficiency of revenue  
17 in the gas service. All of the foregoing was stated by  
18 the B.C. Electric representatives in Victoria. We are  
19 compelled to ask what special need is there to have  
20 natural gas in Victoria that the users of electrical  
21 energy should be expected to pay more for this power in  
22 order that it may replace coal as a fuel?

23 Another important point is that this low  
24 price on gas does not appear to be based on actual cost,  
25 but seems to be the dumping of energy at below-cost to  
26 serve the immediate purpose of the gas producers.  
27 The Canadian Government will not permit dumping at low  
28 prices of foreign merchandise into our markets, recog-  
29 nizing it as an evil and upsetting to the nature of our  
30 economy; yet this same practice is seemingly being







1 allowed to be carried on with one of our own natural  
2 resources without sympathy or regard to the damage it  
3 is doing to other industries and sections of our  
4 economy. This situation is slowly but surely under-  
5 mining and destroying our vital coal industry from  
6 production to distribution centres. Particularly  
7 is it being felt by the Retail Coal Dealers represented  
8 by this Association. We strongly urge, therefore, that  
9 an examination be made immediately of the present  
10 marketing methods of natural gas to determine how it  
11 must meet on a fair and equal basis the competition of  
12 other fuels, and coal in particular.

13 As a further aid to maintaining markets for  
14 coal we recommend that consideration be given to the  
15 establishment of special low freight rates to apply on  
16 small size coals, the consumption of which is largely  
17 confined to large-tonnage industrial and institutional  
18 customers; similar to those concessions already being  
19 granted by some American railroads on traffic of this  
20 nature.

21 Failing this, we recommend consideration be  
22 given to a subvention programme to apply in Western  
23 Canada on the movement of large, regular quantities of  
24 coal for industrial consumption.

25 It has been our opinion that, in efforts to  
26 increase the output of electrical energy by development  
27 of hydro, oil and gas fueled thermal plants, the part  
28 that coal can play in this development has been over-  
29 looked or disregarded because of the tremendous sales  
30 pressure to use oil or gas. The recent announcements





1 in British Columbia of the purchase of coal reserves  
2 for possible use in thermal plants just brings into  
3 focus the true position of coal as the fuel for thermal  
4 plants. Throughout countries similar to Canada that  
5 have abundant coal reserves recent developments  
6 demonstrate that energy can be produced at lower cost  
7 with coal than with competitive fuels - oil, or gas, or  
8 hydro, or nuclear. If coal were used in B.C., generating  
9 costs would be less and there would be no problem of  
10 flooding of large areas or destruction of fish spawning  
11 waters. Most important, there would be a larger  
12 employment of labour with consequent larger payrolls for  
13 B.C. year after year, as compared with the large initial  
14 expenditure and then very small yearly payrolls.

15 With such an arrangement, mines producing  
16 coal for thermal plants would have coal available for  
17 use of smaller consumers and householders, and enable  
18 dealers to keep the business of those preferring to use  
19 coal.

20 As was stated in a Vancouver Province  
21 editorial recently, in commenting on the statement of  
22 Mr. R. D. Perry, Vice-President and General Manager  
23 of Consolidated Mining & Smelting, that "I sometimes  
24 wonder whether we are being lulled into thinking all we  
25 have to do is borrow several hundred million dollars at  
26 high rates of interest, engage some large construction  
27 firms to spend this money, and then sit back and watch  
28 the money roll in". The Province said "His words are  
29 a reminder that the ultimate cost to the consumer is  
30 still a vital yardstick in assessing the practicability







1 of any hydro project."

2 We would summarize our recommendations as  
3 follows -

- 4 1. consider the vital part coal has played and could  
5 continue to play in the economy of our country;
- 6 2. keep the coal industry healthy in order to meet  
7 national emergencies;
- 8 3. prevent the decay of the coal mining industry  
9 because of difficulty in reviving;
- 10 4. have our Federal, Provincial and Civic governments  
11 use coal in their buildings;
- 12 5. urge our Governments to give preference to coal;
- 13 6. consider assisting coal used in Canada on the same  
14 basis as coal shipped to Japan;
- 15 7. acknowledge the contribution coal makes to the  
16 employment situation and to keep the money within  
17 our country;
- 18 8. examine present marketing methods of natural gas  
19 and determine how they should compete on a fair and  
20 equal basis with coal;
- 21 9. give consideration as to how far the freight  
22 structure may be amended to assist coal movements;
- 23 10. give serious consideration to the greater part that  
24 coal may play in thermal plants;
- 25 11. attack our fuel problem with the knowledge that  
26 coal has the largest reserves and can be our  
27 cheapest fuel.

28 We firmly believe that Canada, in keeping with  
29 her neighbour to the south, will have tremendous  
30 industrial growth in the next decade, and that, as is  
already evident in Eastern Canada and the United States,  
coal will be called upon to supply new developments.  
For this reason we think the Commission should recognize  
that assistance be given to the coal industry in Canada  
wherever possible, particularly during the intervening  
difficult years.





1 All of this is respectfully submitted, and  
2 represents the beliefs of a group of men who have a long  
3 experience in serving the requirements of Canada's  
4 fuel users, and have the conviction that our coal  
5 reserves and our coal industry are a tremendous asset  
6 to Canada.

7 THE CHAIRMAN: Well, Mr. Boyd, you cover a  
8 rather wide of area of recommendations. I suppose  
9 you are familiar with what is going on in Europe these  
10 days, are you, in the fuel business?

11 MR. BOYD: I am, yes.

12 THE CHAIRMAN: And you know what is happening  
13 to the mines, say, in Belgium, France, Britain,  
14 Germany?

15 MR. BOYD: I am more familiar with the ones  
16 in Britain.

17 THE CHAIRMAN: Are you familiar with what  
18 is going on the other three?

19 MR. BOYD: Not in the other three.

20 THE CHAIRMAN: One of the latest reports I  
21 had is that in Belgium they had to see what they could  
22 replace over twenty-five thousand miners, France about  
23 the same number, Germany about the same number; Britain  
24 is looking ahead to see what is going to happen, as  
25 it has in the last ten, fifteen years, what it can  
26 do in introducing new industries to take up the slack.  
27 Now, why is that taking place there?

28 MR. BOYD: Of course, in Britain it is taking  
29 place because of the use of other fuels, particularly  
30 in the generation of power.





1 THE CHAIRMAN: But it is oil that is  
2 sweeping western Europe, isn't it?

3 MR. BOYD: Yes.

4 THE CHAIRMAN: And that is imported oil.  
5 What do you think is the basic national policy which  
6 would permit middle east oil to come in and close the  
7 coal mines?

8 MR. BOYD: My opinion is that the coal miner  
9 is the man who has put Britain in the position that  
10 it is in. The coal miner is the highest paid worker  
11 in Britain, and if that wasn't the position the  
12 industry wouldn't be in the position it is in.

13 THE CHAIRMAN: Of course, I am simply taking  
14 the actual results of the national and international  
15 policies that have been put into effect.

16 MR. BOYD: I am suggesting it is not only  
17 oil particularly. If the British miner had maintained  
18 his position that wouldn't be the situation. Of course,  
19 there is the question of nuclear power being used for  
20 everything.

21 THE CHAIRMAN: When that point comes what  
22 do you think is going to happen to coal and oil and  
23 gas?

24 MR. BOYD: They should try to make themselves  
25 independent of oil, of course.

26 THE CHAIRMAN: So it supersedes coal?

27 MR. BOYD: It will.

28 THE CHAIRMAN: Do you think it would be  
29 a sound national policy to permit it to supersede  
30 coal?







1 MR. BOYD: In Britain, yes.

2 THE CHAIRMAN: Would you say that would be  
3 the position in Canada?

4 MR. BOYD: Of course, there are different  
5 positions, there, but the principle is the same, that  
6 one fuel which we produce is superseding another, and  
7 if nuclear power will supersede coal it will have to  
8 be economical. I don't think gas is economical.

9 THE CHAIRMAN: Other people seem to think that  
10 it is, and the user and the producer in the heyday  
11 of their career are demonstrating that it is.

12 MR. BOYD: They are demonstrating it because  
13 of the utility of it, not because of the economy. The  
14 only reason gas is superseding coal is because it is  
15 being dumped. British Columbia gas is being dumped.

16 THE CHAIRMAN: It is being dumped not at a  
17 loss, is it?

18 MR. BOYD: It is being dumped at a cost.  
19 A difference of three hundred per cent is tremendous.

20 THE CHAIRMAN: What do you think the Province  
21 of British Columbia would say if any attempt of that  
22 nature were made?

23 MR. BOYD: Well, it is one of the conditions  
24 we have to face, and who is going to correct it?

25 THE CHAIRMAN: That is your local Provincial  
26 policy in relation to a local provincial fuel.

27 MR. BOYD: Yes. You are enquiring into the  
28 reason why our coal business is being lost, and that  
29 is one of the reasons, and we have submitted it on that  
30 basis, whether you have any control or not.





1 THE CHAIRMAN: Now, here we have the Province  
2 of British Columbia producing gas, producing oil,  
3 producing coal and having hydro-electric, all of those  
4 sources of fuel and power. What would you do if you  
5 were in charge of that as to the action of any  
6 Dominion Government who would come in and say we are  
7 going to put coal in the position where it will dry  
8 up your gas production.

9 MR. BOYD: Well, the Dominion Government  
10 has come in and has done something about our production

11 THE CHAIRMAN: I think that you said that  
12 the Dominion Government should keep its hands off  
13 something that doesn't concern it.

14 Then you speak of national emergencies. You  
15 heard the question that was put to Mr. Simpson. Would  
16 you have anything to add to what he said in answer to  
17 that?

18 MR. BOYD: Yes. I do know that during the  
19 last national emergency apartment houses that were  
20 using oil discontinued using it and were replaced with  
21 coal, hospitals were replaced with coal.

22 THE CHAIRMAN: Why was that.

23 MR. BOYD: Because oil was needed for war  
24 purposes. Consumption of oil during war is ten,  
25 fifteen times more than it normally is.

26 THE CHAIRMAN: Do you think we would be  
27 concerned with any of these fuels if a nuclear war  
28 broke out.

29 MR. BOYD: It seems we would be concerned  
30 with nothing.







1 CROSS-EXAMINATION BY MR. GUNN:

2 MR. GUNN: ON page one of the brief you  
3 say:

4 "A healthy coal industry is of benefit to  
5 many facets of the Canadian economy, and its retention  
6 should be one of the first objects of our Federal  
7 authorities".

8 Why not also the Provincial authorities?

9 MR. BOYD: I agree with you, it should have  
10 been added.

11 THE CHAIRMAN: Thank you, Mr. Boyd.

12 MR. ELLIS: Mr. Commissioner, Mr J. Saxon  
13 Sledding who was to present the brief to the Commission  
14 is not present this morning. There are no further  
15 briefs.

16 THE CHAIRMAN: Well, we have the communication  
17 signed by Mr. Sledding, and it will be taken into  
18 consideration.

19 ---EXHIBIT NO. 58: Submission of Mr. J. Saxon Sledding  
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SUBMISSION OF MR. J. SAXON S LEDDING

Sirs:

The following presentation will come to you as a private citizen's submission, gained from a careful study of the matter in certain aspects of our economy.

1. The first point to be taken is: That the exploitation of Canada's resources is being permitted as though crooks were staging a bank holdup in broad daylight and with the authorities looking on around the corner with their hand out for some of the rewards.

The avaricious greed of these exploiters and financial interests is beyond description, for they seek only the benefits of their own pockets and fail to see that this country will be the homeland for a population just as large as the United States (ultimately) and that population will have to be supported by these same God-given natural resources for the next one thousand and forty years - that being the length of time to fulfil the word of scripture prophecy as God-given in the Bible.

With this knowledge then we must carefully plan ahead for that length of time and our motto should be conservation, even as at last it has become in the case of some of our timber preserves, in that they are now being cut under "tree farm licenses" or "public working circles" and the cut regulated to the annual growth.

This plan design must be put into operation with every natural resource. It is admitted that coal, oil, gas, cannot be replaced as the growth of the tree rings, but we can conserve them in this way - permit





1 only sufficient production as our own nation required  
2 immediately and in the very near future - increasing  
3 production only when the increase of our population  
4 warrants it.

5 2. Comes the next point of consideration: The  
6 action of by-passing useful and still-usable resource  
7 commodities to open a new field of easier gathered  
8 and easier transported fuels such as oil and gas.

9 Thus Coal was by-passed (one of its products  
10 being coal-gas processed in innumerable retort plants  
11 across the nation) and its place taken by the newer,  
12 cleaner, non-poisonous "natural gas" but to the loss  
13 of thousands of coal mining jobs throughout Canada.

14 This matter of serious labour curtailment was  
15 not considered sufficiently enough in the light of  
16 balance before permits were granted for such exploitation  
17 of "natural gas". Whereas, let us say, Alberta gained  
18 materially by such exploitation, a corresponding section  
19 of the Provincial economies lost heavily in Nova Scotia  
20 and New Brunswick and in the Crow's Nest Pass district  
21 of B. C.

22 The same story is told relating to oils taking  
23 the place of coal in the nation's rail transportation  
24 system.

25 May I say that again the Balance was Lost  
26 sight of if indeed it was ever weighed in the light of  
27 employment and the disruption of township's economies.  
28 To the writer this is very sad.

29 3. And it leads me to my third point: viz.  
30 That such weighing of the matter must now take place,







1 even if it means the radical curtailment of oil and  
2 natural gas production so as to conserve these two  
3 elements for future generations.

4 Looking at Canada as a whole we are blessed  
5 with excellent coal deposits from the West Coast thru  
6 the Prairies, thence jumping into the Maritimes. In  
7 British Columbia we have large deposits in the as yet  
8 unopened "Groundhog area"; in the Lower Kootenays where  
9 Fernie is located, and in the newly opening Peace River  
10 area of the Province. Alberta is largely underlain with  
11 coal beds of varying values; the other Prairie Provinces  
12 have some coal. New Brunswick, Nova Scotia are likewise  
13 blessed with some good seams, and I presume there is  
14 some in New Foundland.

15 The cessation of usage of the black diamonds  
16 for heating and railways depressed these areas sadly.  
17 There is presently better reports coming out of New  
18 Brunswick because of Ontario's greater usage for steam-  
19 electric plants, and there is some improvement hoped  
20 for at Fernie in B.C. because of the effort being made  
21 to sell to Japan and to set up bulk ore handling docks  
22 at Burrard Inlet tide water. This is all excellent to  
23 keep the industry alive and for it we can thank God.

24 4. Proceeding to the next matter: which is  
25 the greater and greater use of coal and the most  
26 excellent way so to do.

27 This must be of necessity by the greater  
28 production per man and that means to me only one thing -  
29 greater mechanization, which also will take the heavy  
30 labour burden off the miner's back. It no doubt will





1 mean greater capital investment but this will be  
2 readily forthcoming with the long-range view of coal  
3 mining.

4 There is a very happy linkage between the  
5 black dust and the white power and I will briefly  
6 outline it: The coal can be mined most expeditiously  
7 without thought of preserving lump coal. It will mostly  
8 be crushed at the pit head into coal dust, and used  
9 in the most modern of furnaces installed right there  
10 for firing thermal-electric plants, for the latest in-  
11 formation on such up-to-date furnaces now being built and  
12 used in the Eastern States is that they generate a  
13 Kilowatt of energy for every 2/3 pound of coal burned,  
14 a ratio that is proving excellent, but which they  
15 expect will be lowered yet further.

16 All these pit-head thermal-plants will be  
17 onnected to a National Canadian-American Power Grid  
18 and the cost factor ironed out so that every part of  
19 the nation benefits from lowered power costs.

20 There is envisioned in this planning a  
21 complete electrification of our entire railway system  
22 which must, of necessity, be unified into one business  
23 enterprise from Coast to Coast to further save costs.

24 5. Another point to be presented is this: That  
25 in every location where there is an abundance of coking  
26 coals and iron ore we shall establish smelters and  
27 revolutionize the prospects in Canada where now all  
28 steel is shipped West from the industrial heartland  
29 of Ontario.

30 As the provinces grow , and their growth







1 is now to be much more rapid with increased immigration  
2 from the British Isles to escape the ravages of atomic  
3 bombing in the foreseeable future, greater numbers of  
4 citizens will use more and more steel and its products  
5 and great sums will be saved by cutting transportation  
6 costs.

7 Thus it is very interesting to have word from  
8 Alberta that they contemplate such steel mills, and from  
9 our own B.C. interior where another such steel plant is  
10 to be built. There will come a further expansion I am  
11 sure in the near future right at the Coast close to  
12 Vancouver.

13 6. A further matter must be stressed: It is  
14 Japan's imports of our coals. This must be encouraged  
15 by all means at this present time, and until Japan  
16 is able to find her fulfilment in greater fields closer  
17 home. But now she needs every help and assistance from  
18 this continent to keep her oriented towards the  
19 Democracies, as has been recognized just this past  
20 week in the agreement signed between her and the United  
21 States, for which we can thank God.

22 I readily admit that this shipping of our  
23 iron ores and coking coals to Japan might also be  
24 classed as exploitation, but in the light of present  
25 conditions (in which we place great stock of Canada  
26 being an exporting nation) we must continue to supply  
27 export requirements until in the righting of world  
28 conditions (now soon to take place) we shall find it  
29 unnecessary so to export our basic commodities, but  
30 will find them fully used within our own borders for





1 the production of manufactured goods (which surplus  
2 only will we export either by sale, barter or gift.)

3 The main objective of such exporting is to  
4 give full employment to all our male citizens, and  
5 cancel out the terrible unemployment rolls that  
6 sweep as tides every year across the whole of Canada  
7 and cost the tax-payer untold sums in unemployment  
8 payments.

9 We have proven that there are also many,  
10 many by-products of coal, coal tars and coal gas that  
11 can be sold commercially and very profitably.

12 7. I now come to one of the most important  
13 points: We have allowed, and are allowing the  
14 exploitation of our hydro-electric resources to the  
15 intense profit of a handful of financiers. This must  
16 stop, for it can now be proven that we do not need  
17 these high dams on our rivers to kill the usefulness  
18 of much river bottom farm land, and to cancel out the  
19 commercial and food values of our fish runs, one of  
20 the finest sources of protein known, and which (in  
21 this expanding population) must be considered as one  
22 of the main interests.

23 Let me mention two developments that hit  
24 home in our own British Columbia - the Peace River  
25 and the Columbia River plans.

26 In the first instance the waters of the  
27 Peace River and the Findley River will be backed up  
28 some 200 miles in the form of a large T - flooding  
29 the presently (almost) unoccupied valley bottoms  
30 and low-rolling timbered hills. It is seen today only







1 as such; but sirs it must be seen in the eyes of  
2 farming land required for the population yet to come.  
3 Drawing to your attention that in our B.C. Province  
4 we are short on such farming land.

5 It might be said by some exploiters that  
6 the land is not good enough for farming; that it is  
7 too cold; and other excuses. But it will prove  
8 excellently as useful as the Peace River country is  
9 now doing; I will go farther and say even that whole  
10 Rocky Mountain Trench North of Prince George into the  
11 Liard Plateau.

12 Coming back to the Columbia River proposed  
13 developments that will give us 50% values in down-river  
14 power generation additions as a result of our Canadian  
15 water storage basins. A high dam is ultimately  
16 projected for Mica Creek, but it will be a long time in  
17 the building and may even then be found unnecessary for  
18 a series of much lower dams to take its place. But  
19 there is a proposal to build a high dam at Castlegar  
20 and thus flood the whole of the Arrow Lakes back  
21 up to Revelstoke to a depth of 40 ft. and drown out the  
22 whole valley which even now supports some agriculture,  
23 and ultimately will be expected and made to support  
24 greater numbers on forty-acre farms. (Estimated total  
25 farm land is 40,000 acres which means a possibility  
26 of 1000 farms each supporting at least four people.  
27 This Arrow Lake country must not be allowed to be  
28 drowned out. Land, good farming land is a God-given  
29 heritage to our coming sons and we must not let it be  
30 exploited thus when we have the basic fuel COAL within







1 such easy reach at the Crow's Nest, as well the  
2 benefits of downriver power production given back  
3 to us. It is also proven that a low dam at Castlegar  
4 will hold storage acreage of ample requirements for  
5 the immediate future, until it might be carefully  
6 checked as to a series of dams on the Columbia above  
7 Revelstoke into the Big Bend country.

8 But today we must not be led into rush  
9 developments that will rob Peter to pay Paul, but our  
10 whole outlook must be the future of our nation and the  
11 needs of coming generations yet unborn even unto the  
12 thirty-third generation - 3000 A.D.

13 8. And now a word about nuclear power plants:  
14 Great strides have been made to bring this into use,  
15 and England has already its pilot Calder Hall plant  
16 in operation, and building larger atomic plants, which  
17 simply means that their costs for such power must  
18 even now be quite competitive with steam-electric fired  
19 by coal furnaces. The Pacific Gas & Electric are  
20 already using their pilot plant on San Francisco Bay,  
21 and plans now are ready for the construction of the  
22 Second atomic plant in Ontario at Kilcardine.

23 I noted in connection with P.G. & E's report  
24 that they expect to cut such new type power four to  
25 ten times cheaper than at present which makes a very  
26 interesting comparison. Such power plants are suitable  
27 for locations where other fuels are not obtainable  
28 and it will mean that no part of our nation will lack  
29 from electrical energy.

30 I am convinced that the building of high





1 dams on fish streams must never more be allowed: as  
2 already pointed out from the value of fish proteins and  
3 the loss of farming land in the valley bottom.

4 The proposed Peace River water storage area  
5 will flood at least 4000 square miles of the Rocky  
6 Mountain Trench and this means that 64,000 small farms  
7 would be eliminated as to any future usage. Such would  
8 support a farm family population of at least 320,000  
9 and with essential village services even more so. The  
10 sustained timber yield from those lands will keep an  
11 excellent and large pulpwood industry operating and  
12 create an excellent sector of our British Columbia's  
13 economy in the years to come. The value that is en-  
14 visioned now of \$300,000,000.00 initial stage develop-  
15 ment and an ultimate value of one billion dollars placed  
16 in coal burning, steam-electric plants will produce an  
17 equal amount of power, whilst at the same time saving  
18 these lands for a food supply and living area usage  
19 for a thousand years to come, which value has no  
20 computation.

21 The writer made a study of the Fraser River  
22 problems prior to the final report of the Freaser River  
23 Board being published, and found that there was no  
24 necessity to dam the main stream of the Fraser....for  
25 all necessary benefits of power development, flood  
26 control, dyke erosion, saving of main stream farm  
27 land, could be secured by placing dams on the finger  
28 streams that fed the Fraser-Thompson systems. This is  
29 exactly what the Report also shewed, but it would appear  
30







1 that these facts are being shelved by our own  
2 Provincial Government in order to push and stress  
3 the Wenner-Gren project on the Peace River.

4 The B.C. Government should be the first  
5 ones interested in the fact-finding of that Fraser  
6 River Board, and the first ones to implement those  
7 findings - which are excellent, and are of a nature  
8 to preserve and conserve the various interesting  
9 features mentioned. All these water storage areas  
10 are in the mountain lakes or tributary non-salmon  
11 streams and in no single instance affect fish or poten-  
12 tial farming land. They safeguard the Delta farm lands  
13 by eliminating flood and erosion. Brought into  
14 operation year by year they will provide all the Lower  
15 Mainland and Southern B.C.'s power needs and along with  
16 the down-stream benefits from the Columbia, in fact an  
17 over supply.

18 Thus they are essential, whereas the Peace  
19 River dam is not essential, and a gradual build-up  
20 to its ultimate power potential can be provided by  
21 coal in the Ground Hog area immediately to the West  
22 and the Peace River coal deposits immediately to  
23 the East.

24 I do thank the Lord for these thoughts,  
25 and trust and pray your findings will bring a revival  
26 to the coal mining industry and by extensive use in  
27 steam-electric generating plants, great blessing as  
28 outlined above.

29 Respectfully submitted

30 J. Saxon Sledding.



[The text in this block is extremely faint and illegible. It appears to be a list or index of items, possibly books or documents, arranged in columns. Some faint words like "Title", "Author", and "Date" might be visible, suggesting a catalog format.]



1 P.S.

2 As of today, Feb. 9th, 1960 whilst  
3 these copies are being readied there  
4 is good news of the B.C. Electric's  
5 purchase of the Hat Creek coal beds  
6 for such purposes as outlined above.

7 THE CHAIRMAN: If there are no other  
8 representations to be made by anybody the Commission  
9 will be adjourned sine die.

10 ---Whereupon the hearing was adjourned.  
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